EVOCELL &MOBIUS

IT-FLEX

INSULATION SYSTEMS

2020/1

CATALOGUE PRICE LIST

“The evolution of elastomer technology”

This is our motto that has represented the company’s philosophy for the past 25 years, specializing in R&D, manufacturing and marketing elastomeric products and insulation systems suitable to satisfy all the requirements of thermal and acoustic systems of civil and industrial buildings, focussing on environmental comfort, safety, efficiency and savings in the utilization of traditional energy sources.

Evocell&Mobius S.r.l.

CERTIFICATE OF CONFORMITY UNI ISO 9001:2015

Mod. M06-6

CSI SpA
Sede Legale
20030 Senago - MI - I
Cascina Traversagna 21

Direzione, Uffici e Laboratori
20021 Bollate - MI - I
Viale Lombardia 20
Tel. +39 02 383301
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www.csi-spa.com

CSI CERT

Certificato n°: *Certificate n.:*	SQ113451	Settore EA: *EA Sector:*	14 - 29

Si certifica che il sistema di gestione per la qualità di / *we hereby certify that the quality management system operated by*

EVOCELL&MOBIUS SRL

Sede legale / *Registered office*

Via A. Manzoni, 43 - 20121 Milano (MI) - Italia

Unità operativa di / *Place of business*

Via D. Albertario, 63/65 - Z.I. Bellocchi - 61032 Fano (PU) - Italia

È conforme alla norma: *Is compliance with the standard:* **UNI EN ISO 9001:2015**

Per i seguenti servizi / processi / prodotti – *Concerning the following services / processes / products*

Produzione di tubi in materiale espanso
e commercializzazione di accessori complementari prodotti da terzi.

Il presente certificato è soggetto al rispetto del regolamento di CSICERT per la certificazione dei sistemi di gestione per la qualità delle organizzazioni.
Riferirsi alla documentazione del sistema di gestione per i dettagli delle eventuali esclusioni dei requisiti della UNI EN ISO 9001:2015
Per informazioni puntuali e aggiornate circa eventuali variazioni intervenute nello stato di validità della certificazione di cui al presente certificato, si prega di contattare CSI S.p.A.

This certificate is subject to the compliance with CSICERT regulation for the organization of quality management systems certification.
Refer to the management system documentation for details on UNI EN ISO 9001:2015 requirements exclusions.
For updated information related to validity status of the certification within this certificate, please take in contact CSI spa.

21/11/2011	20/11/2017	14/04/2019	20/11/2020
Rilascio *Issued*	Rinnovo *Renewal*	Aggiornamento *Update*	Scadenza *Expiry*

Ing. P. Baldazzi
B. U. Sistemi di Gestione
B. U. Management Systems

Data: 2019.04.15 14:02:24 +02'00'

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GRUPPO IMQ

IT-FLEX

INSULATION SYSTEMS

ENVIRONMENTAL PRODUCT DECLARATION

A life cycle assessment (LCA) has been carried out on the product **IT-FLEX C1** in order to offer sustainable insulation solutions with the EPD certification

FIELDS OF APPLICATION

INDUSTRIAL APPLICATIONS

HVAC APPLICATIONS

SOLAR HIGH TEMPERATURE APPLICATIONS

REFRIGERATION APPLICATIONS

AIR DISTRIBUTION APPLICATIONS

SHIPYARD APPLICATIONS

RAILWAY APPLICATIONS

OIL AND GAS & PETROCHEMICAL APPLICATIONS

CATALOGUE INDEX

THERMAL INSULATION

SYSTEMS

CHART OF PRODUCT APPLICATIONS

APPLICATIONS	PRODUCTS
 INDUSTRIAL APPLICATIONS	IT-FLEX C1, C1R, Coil, IT-FLEX System Cover, IT-FLEX PE-AL, IT-FLEX Triplex, IT-FLEX HI TECH, IT-FLEX UV Protection, IT-FLEX AT, ATR, AT Coil, DUCT, EVOTEC
 HVAC APPLICATIONS	IT-FLEX C1, C1R, Coil, IT-FLEX System Cover, IT-FLEX PE AL, IT-FLEX Triplex, IT-FLEX HI TECH, IT-FLEX UV Protection, DUCT, EVOTEC
 SOLAR HIGH TEMPERATURE APPLICATIONS	IT-FLEX AT, ATR, AT Coil, ULTRASOLAR 2
 REFRIGERATIONS APPLICATIONS	IT-FLEX C1, C1R, Coil, IT-FLEX System Cover, IT-FLEX Triplex, IT-FLEX HI TECH, IT-FLEX UV Protection, IT-FLEX AT, EVOTEC
 AIR DISTRIBUTION APPLICATIONS	IT-FLEX C1, IT-FLEX System Cover, IT-FLEX PE-AL, IT-FLEX Triplex, IT-FLEX HI TECH, IT-FLEX UV Protection, IT-FLEX AT, ATR, AT Coil, DUCT, EVOTEC
 SHIPYARD APPLICATIONS	IT-FLEX C1, IT-FLEX AT, IT-FLEX HF HALOGEN FREE
 RAILWAY APPLICATIONS	IT-FLEX C1, IT-FLEX AT, IT-FLEX HF HALOGEN FREE
 OIL AND GAS & PETROCHEMICAL APPLICATIONS	IT-FLEX C1, C1R, Coil, IT-FLEX System Cover IT-FLEX PE AL, IT-FLEX Triplex IT-FLEX HI TECH, IT-FLEX UV Protection IT-FLEX HF HALOGEN FREE

IT-FLEX C1

- ★ Closed-cell microcellular structure
- ★ Excellent insulation performance
- ★ High water vapour diffusion resistance
- ★ Ensures safety in the event of fire
- ★ Antimicrobial protection ULTRA-FRESH KW-100*
- ★ λ at 0 °C ≤ 0,034 W/m•K
- ★ μ ≥ 10000 / μ ≥ 7000
- ★ Euroclass B_L - s2, d0 Tubes - B - s3, d0 Sheets

*ULTRA-FRESH is a registered trademark of Thomson Research Associates, Inc

IT-FLEX C1 - C1R - Coil

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF).
PRODUCT SPECIFICATION	Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Self-adhesive and standard tubes in bars, and in continuous rolls with diameters from 6 to 170 mm and thickness from 6 to 60 mm. Sheets in panels and rolls, standard and self-adhesive, with thicknesses from 6 to 60 mm. Tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications, also for exterior use (C1R version).
MAIN CHARACTERISTICS	Flexible and expanded CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.
SAFETY AND ENVIRONMENT	EPD (Environmental Product Declaration). Declaration EPDITALY0094. Validity date 24/02/2020 - 24/02/2025. Code UNCPC 3623. Program operator: EPD Italy

Technical information	Reference data	Test standards
SERVICE TEMPERATURES Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706 - 14707
THERMAL CONDUCTIVITY λ	Sheets, tapes, tubes 6-25 mm: at 0 °C λ ≤ 0,034 W/m•K; at 20 °C λ ≤ 0,036 W/m•K; at 40 °C λ ≤ 0,038 W/m•K Tubes 32-60 mm: at 0 °C λ ≤ 0,036 W/m•K; at 20 °C λ ≤ 0,038 W/m•K; at 40 °C λ ≤ 0,040 W/m•K	EN ISO 8497 - EN 12667
RESISTANCE TO THE VAPOUR WATER DIFFUSION μ	Sheets 6-25 mm; Tubes 6-19 mm μ ≥10000 Sheets 30-50 mm; Tubes 25-60 mm μ ≥7000	EN 13469 - EN 12086
REACTION TO FIRE	EUROCLASS { TUBES B_L - s2, d0; SHEETS B - s3, d0; SHEETS 60 mm: E; TAPE B - s2, d0 }	EN 13501 - 1
USA	UL VO up to thk. 13 mm	
UK	CLASS 1	BS 476 : PART 6 - BS 476 : PART 7
UK	CLASS 0	
LOW FLAME SPREAD	MEETS TEST REQUIREMENTS	Directive MED 96/98/EC - Module D - Module B
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7325
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING (IT-FLEX C1 R):

TYPE	SCRATCH RESISTANT/UV RESISTANT PE FILM	
COLOUR	WHITE RAL 9010	
WATER VAPOUR DIFFUSION FACTOR μ	≥ 10000	EN ISO 12086
OZONE RESISTANCE	EXCELLENT	ISO 7325
UV RESISTANCE	EXCELLENT	UNI ISO 4892 - 2

*** NOTE: for lower temperature applications please contact our technical dept.**

Documents and certifications are available upon registration on our website: www.evocellmobius.it

Evocell&Mobius S.r.l. reserves the right to modify data contained in this document without any obligation of notice.

All normatives quoted in this document are updated to the latest issued versions.

IT-FLEX C1 - INSULATION TUBES - LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **D 6** mm			Thickness **F 9** mm			Thickness **H 13** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”					**EVD006**	496	**2,409**	**EVF006**	352	**3,148**	**EVH006**	220	**4,026**
7,93	8	5/16”					**EVD008**	432	**2,463**	**EVF008**	300	**3,212**	**EVH008**	210	**4,321**
9,52	10	3/8”	10,10	1/8”	6		**EVD010**	364	**2,533**	**EVF010**	266	**3,392**	**EVH010**	172	**4,625**
12,70	12	1/2”					**EVD012**	316	**2,825**	**EVF012**	234	**3,557**	**EVH012**	162	**5,010**
	14		13,60	1/4”	8										
							EVD015	266	**3,059**	**EVF015**	192	**4,015**	**EVH015**	136	**5,510**
15,87	16	5/8”				16									
	18		17,20	3/8”	10		**EVD018**	220	**3,309**	**EVF018**	166	**4,310**	**EVH018**	118	**5,829**
19,05		3/4”				20	**EVD020**	180	**3,392**	**EVF020**	136	**4,316**	**EVH020**	98	**5,884**
22,22	22	7/8”	21,30	1/2”	15		**EVD022**	180	**3,696**	**EVF022**	136	**4,325**	**EVH022**	98	**5,926**
25,40		1”				25	**EVD025**	152	**4,292**	**EVF025**	108	**5,566**	**EVH025**	80	**6,937**
			26,90	3/4”	20										
28,57	28	1-1/8”					**EVD028**	130	**4,542**	**EVF028**	98	**5,926**	**EVH028**	78	**7,751**
							EVD030	112	**4,845**	**EVF030**	92	**6,077**	**EVH030**	72	**7,920**
						32				**EVF032**	76	**6,356**	**EVH032**	58	**8,334**
34,92	35	1-3/8”	33,70	1”	25		**EVD035**	100	**5,731**	**EVF035**	76	**6,646**	**EVH035**	58	**8,722**
										EVF038	66	**7,489**	**EVH038**	50	**10,093**
						40				**EVF040**	60	**7,509**	**EVH040**	48	**10,163**
41,27	42	1-5/8”	42,40	1-1/4”	32		**EVD042**	90	**6,590**	**EVF042**	60	**7,519**	**EVH042**	48	**10,177**
										EVF045	56	**8,349**	**EVH045**	44	**11,118**
			48,30	1-1/2”	40					**EVF048**	50	**8,406**	**EVH048**	40	**11,395**
						50				**EVF050**	50	**9,246**	**EVH050**	34	**12,462**
53,97	54	2”								**EVF054**	46	**10,855**	**EVH054**	34	**14,414**
										EVF057	46	**11,258**	**EVH057**	32	**15,230**
			60,30	2”	50					**EVF060**	46	**11,395**	**EVH060**	32	**15,398**
	64					63				**EVF064**	46	**13,111**	**EVH064**	30	**17,710**
	70									**EVF070**	40	**14,788**	**EVH070**	26	**18,567**
	76,10		76,10	2-1/2”	65	75				**EVF076**	40	**15,230**	**EVH076**	26	**19,150**
	80									**EVF080**	36	**18,567**	**EVH080**	24	**21,961**
	88,90		88,90	3”	80	90				**EVF089**	36	**19,052**	**EVH089**	24	**24,023**
			101,3/104,3	3-1/2”						**EVF102**	22	**28,690**	**EVH102**	16	**34,616**
	108	4-1/4”								**EVF108**	22	**29,577**	**EVH108**	16	**36,279**
	114	4-1/2”	114,30	4”	100	110				**EVF114**	22	**30,823**	**EVH114**	16	**38,132**
						125							**EVH125**	12	**56,523**
	133									**EVF133**	16	**45,785**	**EVH133**	12	**64,339**
			139,70	5”	125	140				**EVF140**	16	**48,712**	**EVH140**	12	**67,050**
	159	6-1/4”	159			160							**EVH160**	12	**67,221**

IT-FLEX C1 - INSULATION TUBES - LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **M 19** mm			Thickness **P 25** mm			Thickness **T 32** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”					**EVM006**	98	**8,366**	**EVP006**	60	**19,758**			
7,93	8	5/16”													
9,52	10	3/8”	10,10	1/8”	6		**EVM010**	98	**8,805**	**EVP010**	60	**19,875**	**EVT010**	36	**33,777**
12,70	12	1/2”					**EVM012**	88	**9,078**	**EVP012**	50	**21,794**	**EVT012**	34	**34,821**
	14		13,60	1/4”	8										
							EVM015	78	**10,813**	**EVP015**	50	**23,973**	**EVT015**	34	**35,898**
15,87	16	5/8”				16									
	18		17,20	3/8”	10		**EVM018**	72	**12,732**	**EVP018**	50	**25,298**	**EVT018**	32	**37,787**
19,05		3/4”				20	**EVM020**	66	**12,753**	**EVP020**	42	**27,100**			
22,22	22	7/8”	21,30	1/2”	15		**EVM022**	64	**13,126**	**EVP022**	42	**28,427**	**EVT022**	32	**43,921**
25,40		1”				25	**EVM025**	50	**14,525**	**EVP025**	40	**30,475**	**EVT025**	24	**46,432**
			26,90	3/4”	20										
28,57	28	1-1/8”					**EVM028**	48	**15,587**	**EVP028**	40	**32,497**	**EVT028**	24	**48,935**
							EVM030	42	**16,990**						
						32	**EVM032**	36	**17,960**	**EVP032**	24	**38,165**	**EVT032**	22	**53,859**
34,92	35	1-3/8”	33,70	1”	25		**EVM035**	36	**19,025**	**EVP035**	24	**39,797**	**EVT035**	22	**54,957**
							EVM038	32	**21,504**						
						40	**EVM040**	32	**22,294**	**EVP040**	22	**54,416**	**EVT040**	16	**64,166**
41,27	42	1-5/8”	42,40	1-1/4”	32		**EVM042**	32	**23,055**	**EVP042**	22	**54,416**	**EVT042**	16	**64,166**
							EVM045	28	**24,939**						
			48,30	1-1/2”	40		**EVM048**	24	**25,727**	**EVP048**	18	**59,000**	**EVT048**	14	**71,007**
						50	**EVM050**	24	**26,849**	**EVP050**	18	**61,360**	**EVT050**	14	**73,967**
53,97	54	2”					**EVM054**	24	**29,119**	**EVP054**	16	**73,845**	**EVT054**	12	**81,751**
							EVM057	22	**30,823**						
			60,30	2”	50		**EVM060**	22	**31,460**	**EVP060**	12	**87,478**	**EVT060**	10	**95,794**
	64					63	**EVM064**	18	**34,616**	**EVP064**	12	**92,004**	**EVT064**	10	**99,581**
	70						**EVM070**	18	**38,384**	**EVP070**	12	**97,927**	**EVT070**	8	**102,438**
	76,10		76,10	2-1/2”	65	75	**EVM076**	18	**40,101**	**EVP076**	10	**105,564**	**EVT076**	8	**113,012**
	80						**EVM080**	14	**43,409**	**EVP080**	10	**109,786**	**EVT080**	8	**115,694**
	88,90		88,90	3”	80	90	**EVM089**	14	**43,867**	**EVP089**	8	**111,318**	**EVT089**	8	**122,795**
			101,3/104,3	3-1/2”			**EVM102**	14	**59,914**	**EVP102**	8	**127,325**	**EVT102**	6	**149,989**
	108	4-1/4”					**EVM108**	12	**63,266**	**EVP108**	6	**132,174**	**EVT108**	6	**161,998**
	114	4-1/2”	114,30	4”	100	110	**EVM114**	12	**64,928**	**EVP114**	6	**137,612**	**EVT114**	6	**176,078**
						125	**EVM125**	10	**86,447**	**EVP125**	4	**148,620**	**EVT125**	4	**190,100**
	133						**EVM133**	8	**96,856**	**EVP133**	4	**167,556**	**EVT133**	4	**204,249**
			139,70	5”	125	140	**EVM140**	8	**98,242**	**EVP140**	4	**176,257**	**EVT140**	4	**221,897**
	159	6-1/4”	159			160	**EVM160**	8	**106,550**	**EVP160**	4	**203,426**	**EVT160**	4	**245,826**
			168,30	6”	150		**EVM170**	6	**123,494**	**EVP170**	4	**233,168**	**EVT170**	4	**294,996**

Packaging dimensions: 209 x 40 x 33 cm.
Packaging volume = 0,27 m^3

IT-FLEX C1 - INSULATION TUBES - LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES										
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Thickness x ø mm	m/box	Price €/m	Thickness x ø mm	m/box	Price €/m	Thickness x ø mm	m/box	Price €/m
6,35	6	1/4”													
7,93	8	5/16”													
9,52	10	3/8”	10,10	1/8”	6					**9 x 10**	266	**3,392**	**6 x 10**	364	**2,533**
12,70	12	1/2”								**9 x 12**	234	**3,557**	**6 x 12**	316	**2,825**
	14		13,60	1/4”	8										
							19 x 15	78	**10,813**	**9 x 15**	192	**4,015**	**6 x 15**	266	**3,059**
15,87	16	5/8”				16									
	18		17,20	3/8”	10		**19 x 18**	72	**12,732**	**9 x 18**	166	**4,310**	**6 x 18**	220	**3,309**
19,05		3/4”				20									
22,22	22	7/8”	21,30	1/2”	15		**32 x 22**	32	**43,921**	**15 x 22**	98	**7,112**	**9 x 22**	136	**4,325**
25,40		1”				25									
			26,90	3/4”	20										
28,57	28	1-1/8”					**32 x 28**	24	**48,935**	**15 x 28**	78	**9,302**	**9 x 28**	98	**5,926**
						32									
34,92	35	1-3/8”	33,70	1”	25		**32 x 35**	22	**54,957**	**15 x 35**	58	**10,466**	**9 x 35**	76	**6,646**
						40									
41,27	42	1-5/8”	42,40	1-1/4”	32		**40 x 42**	16	**117,070**	**19 x 42**	32	**23,055**	**13 x 42**	48	**10,177**
			48,30	1-1/2”	40		**40 x 48**	12	**128,961**	**19 x 48**	24	**25,727**	**13 x 48**	40	**11,395**
						50									
53,97	54	2”					**40 x 54**	10	**140,681**	**19 x 54**	24	**29,119**	**13 x 54**	34	**14,414**
							40 x 57	10	**149,460**	**19 x 57**	22	**30,823**	**13 x 57**	32	**15,230**
			60,30	2”	50		**50 x 60**	8	**234,398**	**25 x 60**	12	**87,478**	**15 x 60**	32	**18,477**
	64					63									
	70														
	76,10		76,10	2-1/2”	65	75	**50 x 76**	6	**284,246**	**25 x 76**	10	**105,564**	**15 x 76**	26	**22,980**
	80														
	88,90		88,90	3”	80	90	**55 x 89**	4	**326,774**	**32 x 89**	8	**122,795**	**19 x 89**	14	**43,867**
			101,3/104,3	3-1/2”											
	108	4-1/4”													
	114	4-1/2”	114,30	4”	100	110	**60 x 114**	4	**377,978**	**32 x 114**	6	**176,078**	**19 x 114**	12	**64,928**

Packaging dimensions: 209 x 40 x 33 cm.
Packaging volume = 0,27 m^3

IT-FLEX C1 - COIL
CONTINUOUS TUBES IN ROLLS

Diameter mm	Thickness (D) 6 mm Code	m/box	Price €/box	Thickness (F) 9 mm Code	m/box	Price €/box	Thickness (H) 13 mm Code	m/box	Price €/box
6	EV7D06C0IL	50	49,406	EV7F06C0IL	40	52,489			
8	EV7D08C0IL	48	49,406	EV7F08C0IL	37	52,489	EV7H08C0IL	24	55,583
10	EV7D10C0IL	46	49,406	EV7F10C0IL	34	52,489	EV7H10C0IL	18	55,583
12	EV7D12C0IL	40	49,406	EV7F12C0IL	31	52,489	EV7H12C0IL	18	55,583
16	EV7D16C0IL	38	49,406	EV7F16C0IL	27	52,489	EV7H16C0IL	17	55,583
18	EV7D18C0IL	30	49,406	EV7F18C0IL	23	52,489	EV7H18C0IL	15	55,583
22	EV7D22C0IL	23	49,406	EV7F22C0IL	19	52,489	EV7H22C0IL	14	55,583
28	EV7D28C0IL	20	49,406	EV7F28C0IL	14	52,489	EV7H28C0IL	10	55,583
35							EV7H35C0IL	8	55,583

Packaging dimensions: 50 x 50 x 20 cm.
Packaging volume = 0,05 m^3

IT-FLEX C1 - * SHEETS IN ROLLS: H 1 m
SHEETS PANELS: 1 x 2 m

Code	Thickness (mm)	Roll (m^2/box)	1 x 2 m panels (m^2/box)	Sheets
				Price €/m^2
EVBL06	6	30	48	54,271
EVBL10	10	20	32	75,075
EVBL13	13	14	24	91,945
EVBL16	16	12	20	110,619
EVBL19	19	10	16	130,319
EVBL25	25	8	12	169,407
EVBL32	32	6	8	212,960
EVBL40	40	4	8	265,012
EVBL50	50	4	6	331,326
EVBL60	60	3	4	396,538

For self-adhesive sheets in rolls, 3,00 euros/m should be added onto the discounted net price.

* For sheets of 1,5 m in height, please contact our sales dept.

For sheet panels, there is an increase of 15% on 6/10/13/16 mm thickesses, 7% on the 19 mm thickness, and 6% on the 25/32/40/50/60 mm thicknesses.

Packaging dimensions: 108 x 54 x 54 cm.
Packaging volume = 0,31 m^3

IT-FLEX C1 R - INSULATION TUBES: LENGTH 2 m WITH EXTERNAL SCRATCH RESISTANT/UV RESISTANT WHITE PE COATING

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **F 9** mm			Thickness **H 13** mm			Thickness **M 19** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**
6,35	6	1/4"													
7,93	8	5/16"													
9,52	10	3/8"	10,10	1/8"	6										
12,70	12	1/2"					**EV9F12R**	170	**1,276**	**EV9H12R**	120	**1,938**	**EV9M12R**	70	**3,273**
	14		13,60	1/4"	8										
15,87	16	5/8"				16	**EV9F16R**	140	**1,537**	**EV9H16R**	100	**2,226**	**EV9M16R**	50	**3,905**
	18		17,20	3/8"	10		**EV9F18R**	130	**1,654**	**EV9H18R**	90	**2,391**	**EV9M18R**	50	**4,592**
19,05		3/4"				20									
22,22	22	7/8"	21,30	1/2"	15		**EV9F22R**	100	**1,698**	**EV9H22R**	70	**2,645**	**EV9M22R**	44	**4,780**
25,40		1"				25									
			26,90	3/4"	20										
28,57	28	1-1/8"					**EV9F28R**	80	**2,289**	**EV9H28R**	60	**3,032**	**EV9M28R**	40	**5,646**
						32									
34,92	35	1-3/8"	33,70	1"	25		**EV9F35R**	60	**2,378**	**EV9H35R**	44	**3,404**	**EV9M35R**	30	**6,254**
						40									
41,27	42	1-5/8"	42,40	1-1/4"	32		**EV9F42R**	50	**2,974**	**EV9H42R**	36	**3,994**	**EV9M42R**	24	**8,076**
	48		48,30	1-1/2"	40								**EV9M48R**	22	**9,079**

Different sizes available on request.

Packaging dimensions: 209 x 40 x 33 cm.
Packaging volume = 0,27 m^3

IT-FLEX C1 R - WHITE PVC JOINT-SEALING TAPE

Code	m/roll	Roll width (mm)	pieces/box	**Price €/roll**
EV8NASTRNCB25	25	38	60	**9,070**




DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm

Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD} + 1 \leq D_i \leq D_{iD} + 4$	$D_{iD} + 1 \leq D_i \leq D_{iD} + 6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX C1

IT-FLEX AT

- ★ Closed-cell microcellular structure
- ★ Excellent insulation performance
- ★ High temperature resistance
- ★ Excellent UV resistance
- ★ λ at 40 °C = 0,042 W/m•K
- ★ Service temperature: +150 °C

IT-FLEX AT - ATR - AT Coil

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF).
PRODUCT SPECIFICATION	Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Self-adhesive and standard tubes in bars, and in continuous rolls with diameters from 10 to 114 mm, and thickness from 9 to 32 mm. Self-adhesive and standard sheets in panels and rolls, with thicknesses from 6 to 32 mm.
PRODUCT APPLICATION	Thermal insulation of heating, air conditioning systems and industrial applications functioning with high temperatures fluids. Also suitable for external applications (ATR version).
MAIN CHARACTERISTICS	Flexible and expanded CFC, HCFC and PVC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURES Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 150 °C (+ 130 °C for sheets glued to the entire surface) - 45 °C *	 EN 14706 - 14707
THERMAL CONDUCTIVITY λ	At mean temp. of +40 °C ≤ 0,042 W/m•K	EN ISO 8497 - EN 12667
REACTION TO FIRE	EUROCLASS { SHEETS AND TAPES - E TUBES - E_L	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
COMPRESSION SET	≥ 60%	UNI 4913
OZONE RESISTANCE	EXCELLENT	ISO 7325
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING (VERSIONE IT-FLEX AT R):

TYPE	SCRATCH RESISTANT - UV RESISTANT PE FILM	
COLOUR	BLACK RAL 9005	
WATER VAPOUR DIFFUSION FACTOR μ	≥ 10000	EN ISO 12086
OZONE RESISTANCE	EXCELLENT	ISO 7325
UV RESISTANCE	EXCELLENT	UNI ISO 4892 - 2

*** NOTE: for lower temperature applications please contact our technical dept.**

Documents and certifications are available upon registration on our website: www.evocellmobius.it

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All normatives quoted in this document are updated to the latest issued versions.

IT-FLEX AT - INSULATION TUBES - LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **F 9** mm			Thickness **H 13** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16	**EV5AT09X015**	140	**3,475**	**EV5AT13X015**	100	**4,473**
	18		17,20	3/8”	10		**EV5AT09X018**	130	**3,548**	**EV5AT13X018**	90	**4,569**
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV5AT09X022**	100	**3,605**	**EV5AT13X022**	70	**4,813**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV5AT09X028**	80	**4,455**	**EV5AT13X028**	60	**5,646**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV5AT09X035**	60	**5,098**	**EV5AT13X035**	44	**6,799**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV5AT09X042**	50	**6,287**	**EV5AT13X042**	36	**8,023**
			48,30	1-1/2”	40		**EV5AT09X048**	36	**7,041**	**EV5AT13X048**	30	**8,912**
						50						
53,97	54	2”					**EV5AT09X054**	36	**8,023**	**EV5AT13X054**	26	**10,725**
			60,30	2”	50		**EV5AT09X060**	32	**9,325**	**EV5AT13X060**	24	**12,500**
	64					63	**EV5AT09X064**	32	**10,526**	**EV5AT13X064**	22	**15,289**
							EV5AT09X067	32	**11,487**	**EV5AT13X067**	22	**16,603**
	70						**EV5AT09X070**	30	**13,126**	**EV5AT13X070**	20	**16,923**
	76,10		76,10	2-1/2”	65	75	**EV5AT09X076**	28	**14,767**	**EV5AT13X076**	16	**17,617**
	80											
	88,90		88,90	3”	80	90	**EV5AT09X089**	22	**16,475**	**EV5AT13X089**	16	**21,659**
		4-1/4”	101,3/104,3	3-1/2”								
	108	4-1/2”										
	114		114,30	4”	100	110	**EV5AT09X114**	18	**20,674**			

IT-FLEX AT - INSULATION TUBES - LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **M 19** mm			Thickness **P 25** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16	**EV5AT19X015**	60	**8,816**			
	18		17,20	3/8”	10		**EV5AT19X018**	60	**8,988**	**EV5AT25X018**	30	**17,486**
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV5AT19X022**	44	**10,441**	**EV5AT25X022**	26	**19,859**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV5AT19X028**	40	**11,668**	**EV5AT25X028**	20	**23,793**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV5AT19X035**	30	**13,765**	**EV5AT25X035**	16	**27,477**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV5AT19X042**	24	**17,597**	**EV5AT25X042**	16	**30,988**
			48,30	1-1/2”	40		**EV5AT19X048**	22	**19,733**	**EV5AT25X048**	12	**38,302**
						50						
53,97	54	2”					**EV5AT19X054**	18	**23,632**	**EV5AT25X054**	12	**42,773**
			60,30	2”	50		**EV5AT19X060**	18	**24,986**	**EV5AT25X060**	10	**47,421**
	64					63						
	70									**EV5AT25X076**	8	
	76,10		76,10	2-1/2”	65	75	**EV5AT19X076**	14	**30,773**			**58,386**
	80											
	88,90		88,90	3”	80	90	**EV5AT19X089**	12	**34,097**	**EV5AT25X089**	8	**64,685**

* For other dimensions and thicknesses please consult our sales dept.

Packaging dimensions: 209 x 40 x 33 cm.
Packaging volume = 0,27 m^3

IT-FLEX AT COIL - INSULATION TUBES IN CONTINUOUS ROLLS

Diameter mm	Thickness **13 mm** Code	m/box	**Price €/box**	Thickness **19 mm** Code	m/box	**Price €/box**
15	**EV5ATCOIL1315**	30	**151,620**	**EV5ATCOIL1915**	25	**249,459**
18	**EV5ATCOIL1318**	30	**154,864**	**EV5ATCOIL1918**	25	**254,154**
22	**EV5ATCOIL1322**	30	**163,179**	**EV5ATCOIL1922**	25	**295,338**
28	**EV5ATCOIL1328**	25	**159,466**	**EV5ATCOIL1928**	20	**264,247**

Packaging dimensions: 50 x 60 x 60 cm.
Packaging volume = 0,18 m^3

IT-FLEX AT - SHEETS IN ROLLS H 1 m

Code	Thickness (mm)	m^2/rolls	**Price €/m^2**
EVBL06AT	6	30	**25,486**
EVBL10AT	10	20	**33,140**
EVBL13AT	13	14	**47,344**
EVBL19AT	19	10	**67,835**
EVBL25AT	25	8	**93,274**
EVBL32AT	32	6	**120,550**

The SYSTEM COVER finishing is also available for sheets and tubes.

* For SELF-ADHESIVE SHEETS or thicknesses greater than 25 mm please contact our technical dept.

Packaging dimensions: 108 x 54 x 54 cm.
Packaging volume = 0,31 m^3

IT-FLEX AT R - INSULATION TUBES - LENGTH 2 m
WITH EXTERNAL SCRATCH RESISTANT/UV RESISTANT BLACK PE COATING

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **H 13** mm			Thickness **M 19** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**
6,35	6	1/4"										
7,93	8	5/16"										
9,52	10	3/8"	10,10	1/8"	6							
12,70	12	1/2"										
	14		13,60	1/4"	8							
15,87	16	5/8"				16	**EV5ATR13X15**	100	**10,535**	**EV5ATR19X15**	60	**17,001**
	18		17,20	3/8"	10		**EV5ATR13X18**	90	**10,877**	**EV5ATR19X18**	60	**17,444**
19,05		3/4"				20						
22,22	22	7/8"	21,30	1/2"	15							
							EV5ATR13X24	70	**11,477**	**EV5ATR19X24**	44	**19,599**
25,40		1"				25						
			26,90	3/4"	20							
28,57	28	1-1/8"										
							EV5ATR13X29	60	**12,989**	**EV5ATR19X29**	40	**21,641**
						32	**EV5ATR13X33**	44	**14,989**	**EV5ATR19X33**	30	**24,867**
35			33,70	1"			**EV5ATR13X35**	44	**15,737**	**EV5ATR19X35**	30	**26,110**
							EV5ATR13X42	36	**18,569**	**EV5ATR19X42**	24	**33,420**
							EV5ATR13X48	30	**21,375**	**EV5ATR19X48**	22	**37,435**
							EV5ATR13X54	26	**25,650**	**EV5ATR19X54**	20	**44,922**

IT-FLEX AT R COIL - INSULATION TUBES IN CONTINUOUS ROLLS
WITH EXTERNAL SCRATCH RESISTANT/UV RESISTANT BLACK PE COATING

Diameter mm	Thickness **13 mm** Code	m/box	**Price €/m²**	Thickness **19 mm** Code	m/box	**Price €/m²**
15	**EV5ATR13X1530**	30	**10,535**	**EV5ATR19X1530**	30	**17,001**
18	**EV5ATR13X1830**	30	**10,877**	**EV5ATR19X1830**	30	**17,444**
22	**EV5ATR13X2430**	30	**11,477**	**EV5ATR19X2430**	30	**19,599**
28	**EV5ATR13X2930**	30	**12,989**	**EV5ATR19X2930**	30	**21,641**
35	**EV5ATR13X3330**	30	**14,989**	**EV5ATR19X3330**	30	**24,867**

Packaging dimensions **Thk. 13 mm** = 80 x 80 x 30 cm - Packaging volume = 0.19 m^3

Packaging dimensions **Thk. 19 mm** = 80 x 80 x 50 cm - Packaging volume = 0.32 m^3

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD}+1 \leq D_i \leq D_{iD}+4$	$D_{iD}+1 \leq D_i \leq D_{iD}+6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX AT

IT-FLEX HF HALOGEN FREE

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ Halogen free (chlorine, bromine, fluorine) and PVC free
- ★ Low emission and low smoke toxicity in the event of fire
- ★ IMO certified. MED Directive 96/98/CE
- ★ λ at 0 °C ≤ 0,036 W/m•K - λ at 40 °C ≤ 0,040 W/m•K
- ★ $\mu \geq 2000$

IT-FLEX HF “HALOGEN FREE”

Technical data sheet

Rev. 03/20

MATERIAL	Black closed-cell flexible elastomeric foam (FEF).
PRODUCT SPECIFICATION	Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Self-adhesive and standard tubes in bars, with diameters from 10 to 114 mm and in thicknesses from 9 to 32 mm. Sheets in rolls in thicknesses from 6 to 32 mm. Tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of refrigeration, heating and air-conditioning services in commercial, industrial and domestic applications. Especially suitable for naval, rail and civil applications where low emission and low smoke toxicity material is required in the event of fire.
MAIN CHARACTERISTICS	Flexible and expanded CFC, HCFC and PVC-free rubber foam. It is dust and fibre free and does not contain halogens.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 130 °C - 45 °C	EN 14706 - 14707
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,036 W/m•K At mean temp. of 40 °C ≤ 0,040 W/m•K	EN ISO 8497 - EN 12667
WATER VAPOUR DIFFUSION FACTOR μ	≥ 2000	EN 13469 - EN 12086
REACTION TO FIRE EUROCLASS	Tubes thk. 6-32 mm - D_L - s2, d0 Sheets thk. 6-25 mm and tapes- D - s3, d0 Sheets thk. 32 mm - E	EN - 13501 - 1
RAILWAYS	HL 1 (Low emission, low toxicity in the event of fire)	EN - TS 45545
SHIPYARDS (MED)	Meets requirements	IMO RES. A 653 (16) - IMO MSC/Circ 1004 DIR. MED 96/98 Modules B and D
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
ANTIMICROBIAL BEHAVIOUR	Meets requirements	AATTCC test method 30 - 2004
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

*** NOTE: for lower temperature applications please contact our technical dept.**

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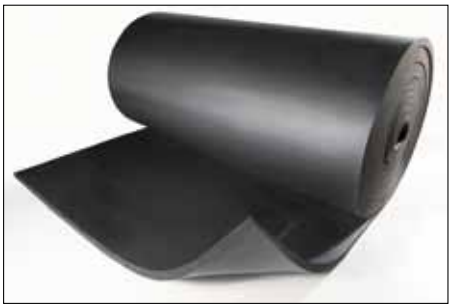
IT-FLEX HF “HALOGEN FREE” - INSULATION TUBES: LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **F 9** mm			Thickness **H 13** mm			Thickness **M 19** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”													
7,93	8	5/16”													
9,52	10	3/8”	10,10	1/8”	6		EV10HF09x10	266	6,432	EV10HF13x10	172	8,589			
12,70	12	1/2”					EV10HF09x12	234	6,756	EV10HF13x12	162	9,379			
	14		13,60	1/4”	8										
							EV10HF09x15	192	7,958	EV10HF13x15	136	10,287	EV10HF19x15	78	17,827
15,87	16	5/8”				16									
	18		17,20	3/8”	10		EV10HF09x18	166	8,319	EV10HF13x18	118	10,730	EV10HF19x18	72	21,402
19,05		3/4”				20									
22,22	22	7/8”	21,30	1/2”	15		EV10HF09x22	136	8,535	EV10HF13x22	98	11,283	EV10HF19x22	64	22,237
25,40		1”				25									
			26,90	3/4”	20										
28,57	28	1-1/8”					EV10HF09x28	98	10,568	EV10HF13x28	78	13,230	EV10HF19x28	48	25,859
						32									
34,92	35	1-3/8”	33,70	1”	25		EV10HF09x35	78	11,921	EV10HF13x35	58	15,987	EV10HF19x35	36	28,875
						40									
41,27	42	1-5/8”	42,40	1-1/4”	32		EV10HF09x42	60	14,744	EV10HF13x42	48	18,862	EV10HF19x42	32	33,290
			48,30	1-1/2”	40		EV10HF09x48	50	16,507	EV10HF13x48	40	20,935	EV10HF19x48	24	42,599
						50									
53,97	54	2”					EV10HF09x54	46	18,800	EV10HF13x54	34	25,222	EV10HF19x54	24	47,773
			60,30	2”	50		EV10HF09x60	46	21,829	EV10HF13x60	32	29,411	EV10HF19x60	22	58,792
	64					63									
	70														
	76,10		76,10	2-1/2”	65	75				EV10HF13x76	26	36,009	EV10HF19x76	18	65,732
	80														
	88,90		88,90	3”	80	90				EV10HF13x89	24	43,689	EV10HF19x89	14	74,783
			101,3/104,3	3-1/2”											
	108	4-1/4”								EV10HF13x108	16	52,603	EV10HF19x108	12	78,200
	114	4-1/2”	114,30	4”	100	110							EV10HF19x114	12	79,109
						125									
	133														
			139,70	5”	125	140									
	159	6-1/4”	159			160									

IT-FLEX HF “HALOGEN FREE” - INSULATION TUBES: LENGTH 2 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **P 25** mm			Thickness **T 32** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		**EV10HF25x18**	50	**45,214**			
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV10HF25x22**	42	**45,297**	**EV10HF32x22**	32	**56,417**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV10HF25x28**	40	**47,662**	**EV10HF32x28**	24	**61,233**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV10HF25x35**	24	**53,334**	**EV10HF32x35**	22	**67,463**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV10HF25x42**	22	**66,452**	**EV10HF32x42**	16	**83,527**
			48,30	1-1/2”	40		**EV10HF25x48**	18	**73,801**	**EV10HF32x48**	14	**93,283**
						50						
53,97	54	2”					**EV10HF25x54**	16	**84,613**	**EV10HF32x54**	12	**107,432**
			60,30	2”	50		**EV10HF25x60**	12	**88,620**	**EV10HF32x60**	10	**115,641**
	64					63	**EV10HF25x64**	12	**95,710**			
	70						**EV10HF25x70**	10	**119,314**			
	76,10		76,10	2-1/2”	65	75	**EV10HF25x76**	10	**122,869**	**EV10HF32x76**	8	**139,970**
	80											
	88,90		88,90	3”	80	90	**EV10HF25x89**	8	**150,056**	**EV10HF32x89**	8	**156,645**
			101,3/104,3	3-1/2”						**EV10HF32x102**	8	**204,349**
	108	4-1/4”										
	114	4-1/2”	114,30	4”	100	110	**EV10HF25x114**	6	**187,909**	**EV10HF32x114**	6	**224,699**
						125						
	133											
			139,70	5”	125	140						
	159	6-1/4”	159			160						

IT-FLEX HF “HALOGEN FREE” - SHEETS IN ROLLS: H 1 m



SHEETS

Code	Thickness (mm)	Roll (m^2/box)	Price €/m^2
EV10HFBL06	6	30	**64,841**
EV10HFBL10	10	20	**94,512**
EV10HFBL13	13	14	**115,517**
EV10HFBL19	19	10	**164,113**
EV10HFBL25	25	8	**213,888**
EV10HFBL32	32	6	**252,251**

The SYSTEM COVER covering is available for sheets and tubes.

Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

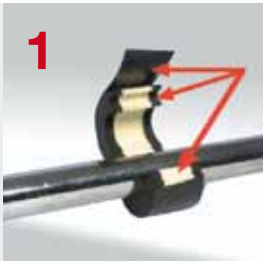
Dimensions in mm

Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD}+1 \leq D_i \leq D_{iD}+4$	$D_{iD}+1 \leq D_i \leq D_{iD}+6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

Mounting instructions:
1 - Mount the support onto the piping and glue the surfaces with the AB 850 adhesive (⟶)

2 - Close and seal the support.



IT-FLEX HF "HALOGEN FREE" PIPING SUPPORTS

ø piping (mm)	Thickness 13 mm		Thickness 19 mm		Thickness 25 mm		Thickness 32 mm	
	Code	€/each	Code	€/each	Code	€/each	Code	€/each
18	EV10HFSU13018	14,419	EV10HFSU19018	17,672				
22	EV10HFSU13022	15,136	EV10HFSU19022	18,577	EV10HFSU25022	24,929	EV10HFSU32022	29,560
28	EV10HFSU13028	16,961	EV10HFSU19028	19,926	EV10HFSU25028	27,034	EV10HFSU32028	32,696
35	EV10HFSU13035	18,581	EV10HFSU19035	22,392	EV10HFSU25035	29,966	EV10HFSU32035	33,664
42	EV10HFSU13042	21,126	EV10HFSU19042	25,064	EV10HFSU25042	34,117	EV10HFSU32042	37,992
48	EV10HFSU13048	24,916	EV10HFSU19048	28,025	EV10HFSU25048	37,985	EV10HFSU32048	41,215
54	EV10HFSU13054	25,205	EV10HFSU19054	29,962	EV10HFSU25054	40,052	EV10HFSU32054	46,315
60	EV10HFSU13060	29,554	EV10HFSU19060	32,786	EV10HFSU25060	43,762	EV10HFSU32060	49,694
76	EV10HFSU13076	38,001	EV10HFSU19076	40,967	EV10HFSU25076	53,095	EV10HFSU32076	53,172
89	EV10HFSU13089	42,115	EV10HFSU19089	48,521	EV10HFSU25089	62,281	EV10HFSU32089	67,327
114			EV10HFSU19114	65,723	EV10HFSU25114	83,404	EV10HFSU32114	88,564

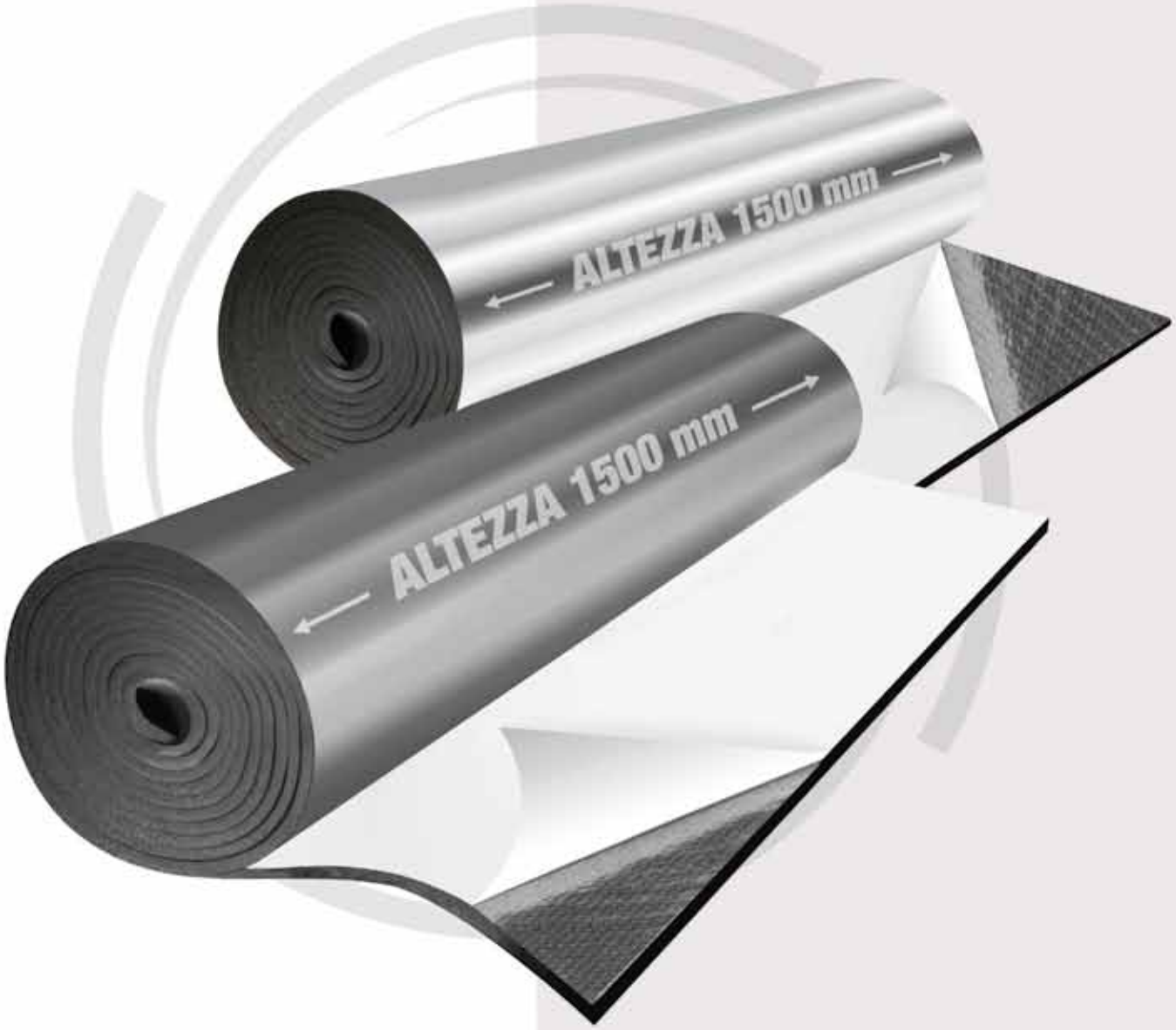
IT-FLEX HF "HALOGEN FREE" - ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc./box)	Price €/roll
EV10HFN315	15	50	12	103,573

IT-FLEX - NEOPRENE ADHESIVE, DETERGENTS, PAINT

Code	Description	Packaging content (pc.)	Price €/each
EV8AB850	850 g tin	12	20,624
EV8AB425	425 g tin	24	12,916
EV8DETERGENTE	1 l can	12	20,080
EV8ACVEG-G	Grey elastomeric paint 0,75 l	loose	49,154
EV8ACVEG-B	White elastomeric paint 0,75 l	loose	49,154



IT-FLEX C1 SA
"DUCT" ADHESIVE

IT-FLEX TRIPLEX
"DUCT" ADHESIVE

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Ensures safety in the event of fire
- ★ Improves installation time on ductwork and relative components
- ★ λ at 0 °C ≤ 0,034 W/m•K
- ★ $\mu \geq 7000$

IT-FLEX C1 SA "DUCT" ADHESIVE
IT-FLEX TRIPLEX "DUCT" ADHESIVE

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF)
PRODUCT SPECIFICATION	Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Self-adhesive sheets in rolls with thicknesses from 6 to 30 mm. Tapes with a thickness of 3 mm. The Triplex version is manufactured with a multilayer protective film coating.
PRODUCT APPLICATION	Thermal insulation of ducts and components of air distribution systems also in external environments. (Triplex version).
MAIN CHARACTERISTICS	Flexible and expanded CFC and HCFC-free rubber foam. Does not contain dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,034 W/m•K At mean temp. of 40 °C ≤ 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ	≥ 7000	EN 12086
REACTION TO FIRE	EUROCLASS { B - s3, d0 (SA version) B - s2, d0 (tape) E (TRIPLEX version)	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

TYPE	MULTILAYER FILM COMPOSITE (PET+ALU+PE)	
COLOUR	ALUMINIUM	
TOTAL THICKNESS	≅ 100 μm	
WEIGHT	125 g m2	
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	EXCELLENT	UNI ISO 4892 - 2

*** NOTE: for lower temperature applications please contact our technical dept.**

Documents and certifications are available upon registration on our website: www.evocellmobius.it

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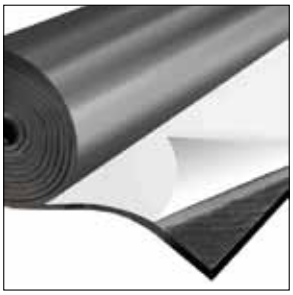
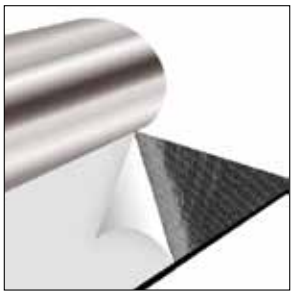


IT-FLEX C1 SA "DUCT" SELF-ADHESIVE SHEETS IN ROLLS h. 1500 mm



IT-FLEX C1 TRIPLEX "DUCT" SELF-ADHESIVE SHEETS IN ROLLS h. 1500 mm WITH MULTILAYER FILM COMPOSITE (PET + ALU + PE) COATING

Code	Thickness (mm)	Roll (m^2/sack)	Price €/m^2
EVBLA06SADUCT	6	45	**17,470**
EVBLA08SADUCT	8	37,5	**18,545**
EVBLA10SADUCT	10	30	**19,307**
EVBLA12SADUCT	12	22,5	**20,856**
EVBLA15SADUCT	15	18	**25,072**
EVBLA20SADUCT	20	15	**31,370**
EVBLA30SADUCT	30	9	**42,958**

Code	Thickness (mm)	Roll (m^2/sack)	Price €/m^2
EVBLATR06DUCT	6	45	**27,672**
EVBLATR08DUCT	8	37,5	**29,036**
EVBLATR10DUCT	10	30	**30,179**
EVBLATR12DUCT	12	22,5	**33,784**
EVBLATR15DUCT	15	18	**39,930**
EVBLATR20DUCT	20	15	**46,089**
EVBLATR30DUCT	30	9	**62,368**

Polythene UV resistant packaging dimensions: 0,55 x h. 1,50 m
Packaging volume = 0.36 m^3

IT-FLEX ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

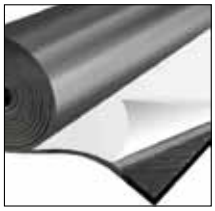
Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRON3	10	50	24	**17,874**
EV8NASTRON315	15	50	12	**25,023**
EV8NASTROTRI	10	50	24	**20,451**

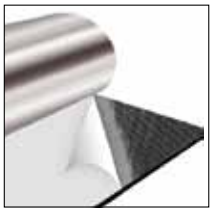
IT-FLEX - NEOPRENE ADHESIVE, DETERGENTS, PAINT

Code	Description	Packaging content (pc)	Price €/each
EV8AB850	850 g tin	12	**20,624**
EV8AB425	425 g tin	24	**12,916**
EV8DETERGENTE	1 l can	12	**20,080**
EV8ACVEG-G	Grey elastomeric paint 0,75 l	loose	**49,154**
EV8ACVEG-B	White elastomeric paint 0,75 l	loose	**49,154**

IT-FLEX - ADHESIVE JOINT-SEALING TAPE

Code	Roll length (m)	Roll width (mm)	Packaging content (pc./box)	Price €/roll
EV8NASTRNCA25	50	25	Sfusi	**18,590**
EV8NASTRNCA50	50	50	Sfusi	**33,742**





DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD}+1 \leq D_i \leq D_{iD}+4$	$D_{iD}+1 \leq D_i \leq D_{iD}+6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX C1 SA

"DUCT" ADHESIVE

IT-FLEX TRIPLEX

"DUCT" ADHESIVE

EUROCLASS B-s2,d0

Evocell&Mobius EVOTEC

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Good flexibility and adaptability to surfaces
- ★ Excellent mechanical resistance
- ★ λ at 0 °C ≤ 0,034 W/m•K
- ★ μ ≥ 10000

Evocell&Mobius EVOTEC

Technical data sheet

Rev. 03/20

MATERIAL	Black closed-cell flexible elastomeric foam (FEF) coupled with mineral fibre material with a black exterior finishing.
PRODUCT SPECIFICATION	Thermal insulation material produced in accordance with the European Standard EN 14304. (UNI EN 14304)
PRODUCT RANGE	Standard and self-adhesive sheets in rolls with thicknesses from 6 to 32 mm. Tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of refrigeration, air-conditioning and heating & plumbing services in commercial, industrial and domestic applications also situated in external environments.
MAIN CHARACTERISTICS	CFC and HCFC-free rubber foam.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 +110 °C * -45 °C	EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C 0,034 W/m•K At mean temp. of +40 °C 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ	Sheets thk. 6-32 mm $\mu \geq 10000$	EN 12086
WATER ABSORPTION	< 0.1 kg/m^2	EN 13472/EN 1609
REACTION TO FIRE	EUROCLASS B - s2, d0	EN 13501-1
UV RESISTANCE	EXCELLENT	UNI ISO 4892-2
OZONE RESISTANCE	EXCELLENT	ISO 7326
CORROSION RISK	MEETS TEST REQUIREMENTS	DIN 1988 Part 7 - EN 13668

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

TYPE	MINERAL FIBRE MATERIAL
TOTAL THICKNESS	μm approx. 200
WEIGHT	g/m^2 approx 250
COLOUR	BLACK RAL 9005

*** NOTE: for lower temperature applications please contact our technical dept.**

Documents and certifications are available upon registration on our website: www.evocellmobius.it

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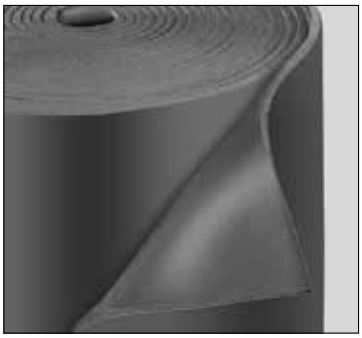
EVOTEC - ELASTOMER COUPLED WITH MINERAL FIBRE MATERIAL WITH A BLACK EXTERIOR FINISHING



SHEETS IN ROLLS H 1m

NON-ADHESIVE ROLLS

Code	Thickness (mm)	Roll (m^2/ct)	Price €/m^2
EVOTECBL006	6	30	**67,60**
EVOTECBL010	10	20	**69,96**
EVOTECBL013	13	14	**77,18**
EVOTECBL019	19	10	**92,90**
EVOTECBL025	25	8	**108,04**
EVOTECBL032	32	6	**133,72**

For self-adhesive sheet rolls please add 3,00 euros/m onto the discounted net price.

Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

SHEETS IN ROLLS H 1.5 m

SELF-ADHESIVE SHEETS WITH MESH

Code	Thickness (mm)	Roll (m^2/ct)	Price €/m^2
EVOTECBL00815	8	37,5	**76,84**
EVOTECBL01015	10	30	**79,44**
EVOTECBL01215	12	22,5	**83,59**
EVOTECBL01515	15	18	**94,17**
EVOTECBL02015	20	15	**105,72**
EVOTECBL02515	25	12	**118,77**
EVOTECBL03015	30	9	**143,15**

For non-adhesive sheets please contact our Sales Dept.

Packaging dimensions: polythene UV resistant sacks: 0,55 x H 1,50 m - Packaging volume = 0,36 m^3

EVOTEC ADHESIVE ELASTOMERIC STRIP

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTEVOTEC	25	50	Sfuso	**67,01**

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD}+1 \leq D_i \leq D_{iD}+4$	$D_{iD}+1 \leq D_i \leq D_{iD}+6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

Evocell&Mobius EVOTEC

IT-FLEX PE AL

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Good flexibility
- ★ Good mechanical resistance
- ★ λ at 0 °C $\leq$ 0,034 W/m•K
- ★ $\mu \geq 10000$

IT-FLEX PE AL

Technical data sheet

Rev. 03/20

MATERIAL	Composite product of closed-cell flexible elastomeric flexible (FEF), coupled with a cross-linked PE layer and coated with an embossed aluminized PE film.
PRODUCT SPECIFICATION	Thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Tubes in bars with diameters from 15 to 160 mm and in thicknesses from 9 to 32 mm. Standard and self-adhesive sheets in rolls with thicknesses from 6 to 32 mm. Tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications, also for external use.
MAIN CHARACTERISTICS	CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 40 °C *	 EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,034 W/m•K At mean temp. of 40 °C ≤ 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ	≥ 10000	EN 12086
REACTION TO FIRE	EUROCLASS { SHEETS - E TUBES - E	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

CROSSLINKED PE	THICKNESS 3 mm
PE FILM ALUMINIZED AND EMBOSSED	THICKNESS 32 microns
PROTECTIVE FILM COLOUR	ALUMINIUM

*** NOTE: for lower temperature applications please contact our technical dept.**

For self adhesive sheets and tapes, the maximum service temperature is 85 °C.

Documents and certifications are available upon registration on our website: www.evocellmobius.it

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IT-FLEX PE AL - ELASTOMER COUPLED WITH CROSSLINKED PE WITH AN ALUMINATED EMBOSSED COATING - SHEETS IN ROLLS H 1 m

NON-ADHESIVE SHEETS

Code	Thickness (mm)	Roll (m^2/box)	Price €/m^2
EV8PEALBL06 +3 mm PE ALU	6	20	**30,682**
EV8PEALBL10 +3 mm PE ALU	9	14	**36,416**
EV8PEALBL13 +3 mm PE ALU	13	12	**42,790**
EV8PEALBL16 +3 mm PE ALU	16	10	**47,947**
EV8PEALBL19 +3 mm PE ALU	19	8	**55,527**
EV8PEALBL25 +3 mm PE ALU	25	6	**71,914**
EV8PEALBL32 +3 mm PE ALU	32	4	**82,914**

For self-adhesive sheet rolls please add 3,00 euros/m onto the discounted net price.

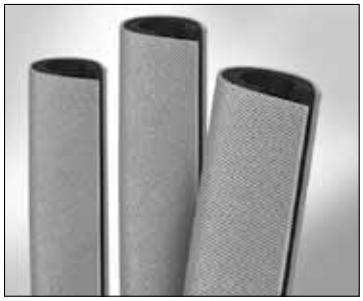
Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

IT-FLEX PE AL - ADHESIVE ELASTOMERIC TAPES

Thickness 1,5 mm

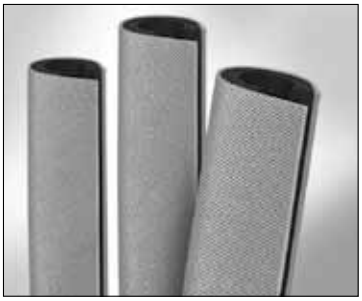
Code	Roll length (m)	Roll width (mm)	Packaging content (pc./box)	Price €/roll
EV8NASTROPEAL	25	50	12	**38,821**

IT-FLEX PE AL - PRECUT SELF-ADHESIVE TUBES: LENGTH 1 m



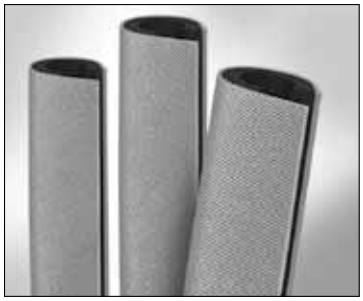
COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **9** mm			Thickness **13** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
							EV3CPE09X015	76	**26,050**	**EV3CPE13X015**	55	**27,064**
15,87	16	5/8”				16						
	18		17,20	3/8”	10		**EV3CPE09X018**	66	**26,704**	**EV3CPE13X018**	50	**27,681**
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV3CPE09X022**	52	**27,431**	**EV3CPE13X022**	45	**28,575**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV3CPE09X028**	43	**28,835**	**EV3CPE13X028**	35	**29,843**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV3CPE09X035**	34	**30,462**	**EV3CPE13X035**	28	**32,787**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV3CPE09X042**	29	**33,213**	**EV3CPE13X042**	23	**34,671**
			48,30	1-1/2”	40		**EV3CPE09X048**	21	**36,134**	**EV3CPE13X048**	18	**37,358**
						50						
53,97	54	2”					**EV3CPE09X054**	20	**37,318**	**EV3CPE13X054**	16	**38,915**
			60,30	2”	50		**EV3CPE09X060**	18	**38,293**	**EV3CPE13X060**	15	**40,032**
	64					63				**EV3CPE13X064**	13	**44,036**
	70											
	76,10		76,10	2-1/2”	65	75	**EV3CPE09X076**	12	**48,648**	**EV3CPE13X076**	10	**48,336**
	80											
	88,90		88,90	3”	80	90	**EV3CPE09X089**	10	**51,090**	**EV3CPE13X089**	9	**51,198**
			101,3/104,3	3-1/2”			**EV3CPE09X102**	8	**59,325**	**EV3CPE13X102**	7	**63,782**
	108	4-1/4”					**EV3CPE09X108**	7	**62,702**	**EV3CPE13X108**	6	**65,202**
	114	4-1/2”	114,30	4”	100	110	**EV3CPE09X114**	6	**67,670**	**EV3CPE13X114**	5	**66,283**
						125	**EV3CPE09X125**	5	**99,466**	**EV3CPE13X125**	5	**97,140**
	133						**EV3CPE09X133**	5	**102,056**	**EV3CPE13X133**	5	**99,291**
			139,70	5”	125	140	**EV3CPE09X140**	5	**104,275**	**EV3CPE13X140**	4	**101,314**
	159	6-1/4”				160	**EV3CPE09X160**	4	**130,214**	**EV3CPE13X160**	3	**125,581**

IT-FLEX PE AL - PRECUT SELF-ADHESIVE TUBES: LENGTH 1 m



COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **19** mm			Thickness **25** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
							EV3CPE19X015	40	32,818			
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV3CPE19X018	33	33,620	EV3CPE25X018	25	41,288
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV3CPE19X022	27	34,619	EV3CPE25X022	21	42,349
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV3CPE19X028	24	38,207	EV3CPE25X028	19	44,456
						32						
34,92	35	1-3/8”	33,70	1”	25		EV3CPE19X035	20	40,449	EV3CPE25X035	16	47,034
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV3CPE19X042	16	42,434	EV3CPE25X042	13	48,648
			48,30	1-1/2”	40		EV3CPE19X048	14	45,751	EV3CPE25X048	12	54,813
						50						
53,97	54	2”					EV3CPE19X054	12	47,452	EV3CPE25X054	10	62,691
			60,30	2”	50		EV3CPE19X060	11	49,142	EV3CPE25X060	9	66,525
	64					63	EV3CPE19X064	9	53,811			
	70											
	76,10		76,10	2-1/2”	65	75	EV3CPE19X076	9	57,044	EV3CPE25X076	6	72,873
	80											
	88,90		88,90	3”	80	90	EV3CPE19X089	7	61,395	EV3CPE25X089	5	79,063
			101,3/104,3	3-1/2”			EV3CPE19X102	6	72,010	EV3CPE25X102	5	85,510
	108	4-1/4”					EV3CPE19X108	5	73,589	EV3CPE25X108	4	90,306
	114	4-1/2”	114,30	4”	100	110	EV3CPE19X114	5	75,241	EV3CPE25X114	4	93,795
						125	EV3CPE19X125	5	112,955	EV3CPE25X125	4	121,684
	133						EV3CPE19X133	4	116,184	EV3CPE25X133	3	145,181
			139,70	5”	125	140	EV3CPE19X140	3	118,316	EV3CPE25X140	3	147,671
	159	6-1/4”	159			160	EV3CPE19X160	3	144,244	EV3CPE25X160	2	152,787

IT-FLEX PE AL - PRECUT SELF-ADHESIVE TUBES: LENGTH 1 m



COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **32** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**
6,35	6	1/4”							
7,93	8	5/16”							
9,52	10	3/8”	10,10	1/8”	6				
12,70	12	1/2”							
	14		13,60	1/4”	8				
15,87	16	5/8”				16			
	18		17,20	3/8”	10		**EV3CPE32X018**	16	**48,586**
19,05		3/4”				20			
22,22	22	7/8”	21,30	1/2”	15		**EV3CPE32X022**	15	**49,832**
25,40		1”				25			
			26,90	3/4”	20				
28,57	28	1-1/8”					**EV3CPE32X028**	12	**53,234**
						32			
34,92	35	1-3/8”	33,70	1”	25		**EV3CPE32X035**	10	**54,960**
						40			
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV3CPE32X042**	9	**60,162**
			48,30	1-1/2”	40		**EV3CPE32X048**	9	**67,684**
						50			
53,97	54	2”					**EV3CPE32X054**	8	**71,123**
			60,30	2”	50		**EV3CPE32X060**	6	**78,002**
	64					63			
	70								
	76,10		76,10	2-1/2”	65	75	**EV3CPE32X076**	6	**95,239**
	80								
	88,90		88,90	3”	80	90	**EV3CPE32X089**	4	**101,167**
			101,3/104,3	3-1/2”			**EV3CPE32X102**	4	**124,371**
	108	4-1/4”					**EV3CPE32X108**	4	**126,479**
	114	4-1/2”	114,30	4”	100	110	**EV3CPE32X114**	4	**129,635**
						125	**EV3CPE32X125**	3	**172,032**
	133						**EV3CPE32X133**	3	**172,929**
			139,70	5”	125	140	**EV3CPE32X140**	2	**179,701**
	159	6-1/4”	159			160	**EV3CPE32X160**	2	**187,703**

IT-FLEX PE AL - ELBOW SHAPE 3

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **9** mm		Thickness **13** mm		Thickness **19** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV2CPE09X018	38,058	EV2CPE13X018	38,365	EV2CPE19X018	41,793
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV2CPE09X022	39,845	EV2CPE13X022	40,179	EV2CPE19X022	43,952
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV2CPE09X028	41,065	EV2CPE13X028	41,374	EV2CPE19X028	45,565
						32						
34,92	35	1-3/8”	33,70	1”	25		EV2CPE09X035	41,399	EV2CPE13X035	41,990	EV2CPE19X035	47,045
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CPE09X042	43,926	EV2CPE13X042	44,665	EV2CPE19X042	48,955
			48,30	1-1/2”	40		EV2CPE09X048	46,047	EV2CPE13X048	46,972	EV2CPE19X048	50,990
						50						
53,97	54	2”					EV2CPE09X054	49,079	EV2CPE13X054	49,363	EV2CPE19X054	53,061
			60,30	2”	50		EV2CPE09X060	50,609	EV2CPE13X060	51,398	EV2CPE19X060	55,084
	64					63						
	70											
	76,10		76,10	2-1/2”	65	75	EV2CPE09X076	58,880	EV2CPE13X076	59,570	EV2CPE19X076	64,972
	80											
	88,90		88,90	3”	80	90	EV2CPE09X089	62,066	EV2CPE13X089	63,356	EV2CPE19X089	68,386
			101,3/104,3	3-1/2”			EV2CPE09X102	70,482	EV2CPE13X102	72,528	EV2CPE19X102	78,015
	108	4-1/4”					EV2CPE09X108	73,589	EV2CPE13X108	74,981	EV2CPE19X108	84,253
	114	4-1/2”	114,30	4”	100	110	EV2CPE09X114	77,373	EV2CPE13X114	80,912	EV2CPE19X114	90,122
						125	EV2CPE09X125	83,009	EV2CPE13X125	86,680	EV2CPE19X125	96,139
	133						EV2CPE09X133	86,016	EV2CPE13X133	89,652	EV2CPE19X133	105,101
			139,70	5”	125	140	EV2CPE09X140	93,549	EV2CPE13X140	97,727	EV2CPE19X140	113,152
	159	6-1/4”	159			160	EV2CPE09X160	99,897	EV2CPE13X160	104,793	EV2CPE19X160	122,471

IT-FLEX PE AL - ELBOW SHAPE 3

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **25** mm		Thickness **32** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”								
7,93	8	5/16”								
9,52	10	3/8”	10,10	1/8”	6					
12,70	12	1/2”								
	14		13,60	1/4”	8					
15,87	16	5/8”				16				
	18		17,20	3/8”	10		EV2CPE25X018	44,507	EV2CPE32X018	54,073
19,05		3/4”				20				
22,22	22	7/8”	21,30	1/2”	15		EV2CPE25X022	46,652	EV2CPE32X022	54,861
25,40		1”				25				
			26,90	3/4”	20					
28,57	28	1-1/8”					EV2CPE25X028	48,624	EV2CPE32X028	56,723
						32				
34,92	35	1-3/8”	33,70	1”	25		EV2CPE25X035	50,620	EV2CPE32X035	59,744
						40				
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CPE25X042	53,234	EV2CPE32X042	66,155
			48,30	1-1/2”	40		EV2CPE25X048	55,380	EV2CPE32X048	68,609
						50				
53,97	54	2”					EV2CPE25X054	58,117	EV2CPE32X054	70,014
			60,30	2”	50		EV2CPE25X060	60,569	EV2CPE32X060	75,425
	64					63				
	70									
	76,10		76,10	2-1/2”	65	75	EV2CPE25X076	71,234	EV2CPE32X076	87,743
	80									
	88,90		88,90	3”	80	90	EV2CPE25X089	79,015	EV2CPE32X089	91,219
			101,3/104,3	3-1/2”			EV2CPE25X102	91,983	EV2CPE32X102	109,466
	108	4-1/4”					EV2CPE25X108	97,727	EV2CPE32X108	117,861
	114	4-1/2”	114,30	4”	100	110	EV2CPE25X114	106,888	EV2CPE32X114	128,832
						125	EV2CPE25X125	113,263	EV2CPE32X125	146,635
	133						EV2CPE25X133	116,320	EV2CPE32X133	152,232
			139,70	5”	125	140	EV2CPE25X140	123,938	EV2CPE32X140	161,911
	159	6-1/4”	159			160	EV2CPE25X160	136,294	EV2CPE32X160	186,433

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD} + 1 \leq D_i \leq D_{iD} + 4$	$D_{iD} + 1 \leq D_i \leq D_{iD} + 6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX PE AL

NB: FOR EXTERNAL APPLICATIONS IT IS ADVISABLE TO ATTACH THE SYSTEM USING SMALL PLASTIC TACKS AS ILLUSTRATED IN THE PHOTOGRAPHS. IT IS ALSO RECOMMENDED TO SEAL THE SYSTEM WITH ALUMINIUM COLOURED MARINE SILICONE SEALANT.

IT-FLEX TRIPLEX

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Good flexibility
- ★ Good mechanical resistance
- ★ λ at 0 °C $\leq$ 0,034 W/m•K
- ★ $\mu \geq 10000$

IT-FLEX TRIPLEX

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF), with a multilayer coating of PET-PE-ALU films.
PRODUCT SPECIFICATION	Thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Standard and self-adhesive sheets in rolls with thicknesses from 6 to 32 mm. Adhesive tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications.
MAIN CHARACTERISTICS	CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,034 W/m•K At mean temp. of 40 °C ≤ 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ only on elastomer	Sheets thk. 6-32 mm μ ≥ 10000	EN 12086
REACTION TO FIRE	EUROCLASS E	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

TOTAL THICKNESS	≅ 100 μm
WEIGHT	≅ 125 gm^2
PROTECTIVE FILM COLOUR	ALUMINIUM

*** NOTE: for lower temperature applications please contact our technical dept.**

For self adhesive sheets and tapes, the maximum service temperature is 85 °C.

Documents and certifications are available upon registration on our website: www.evocellmobius.it

Evocell&Mobius S.r.l. reserves the right to modify data contained in this document without any obligation of notice.

All normatives quoted in this document are updated to the latest issued versions.

IT-FLEX TRIPLEX - ELASTOMER COUPLED WITH A MULTILAYER COATING OF ALUMINIUM/PET/PE FILMS - SHEETS IN ROLLS: H 1 m

NON-ADHESIVE SHEETS

Code	Thickness (mm)	Roll (m^2/box)	Price €/m^2
EV8TRIBL06	6	30	**26,186**
EV8TRIBL10	9	20	**31,922**
EV8TRIBL13	13	14	**38,294**
EV8TRIBL16	16	12	**43,450**
EV8TRIBL19	19	10	**51,029**
EV8TRIBL25	25	8	**67,414**
EV8TRIBL32	32	6	**78,410**

For self-adhesive sheet rolls please add 3,00 euros/m onto the discounted net price.

Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

IT-FLEX TRIPLEX - ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTROTRI	10	50	24	**20,451**

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm

Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \le 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \le 8$	**± 1**	3,0 mm	$D_{iD}+1 \le D_i \le D_{iD}+4$	$D_{iD}+1 \le D_i \le D_{iD}+6$
			$8 < d_D \le 18$	**± 1,5**	-		
			$18 < d_D \le 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX HI-TECH

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Good flexibility
- ★ Good mechanical resistance
- ★ Excellent UV resistance
- ★ λ at 0 °C $\leq$ 0,034 W/m•K
- ★ $\mu \geq 10000$

IT-FLEX HI TECH

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF) coated with an embossed aluminium sheet.
PRODUCT SPECIFICATION	Thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Standard and self-adhesive sheets in rolls with thicknesses from 6 to 32 mm. Adhesive tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications. Also suitable for external use.
MAIN CHARACTERISTICS	CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,034 W/m•K At mean temp. of 40 °C ≤ 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ only on elastomer	Sheets thk. 6-32 mm μ ≥ 10000	EN 12086
REACTION TO FIRE	EUROCLASS C - s3, d0	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

TYPE	EMBOSSED ALU SHEET
TOTAL THICKNESS	50 μm
RESISTANCE TO WATER VAPOUR DIFFUSION μ	∞

*** NOTE: for lower temperature applications please contact our technical dept.**

For self adhesive sheets and tapes, the maximum service temperature is 85 °C.

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IT-FLEX HI TECH - ELASTOMER COUPLED WITH AN EMBOSSED ALU SHEET. SHEET IN ROLLS: H 1 m

NON-ADHESIVE SHEETS

Codice	Thickness (mm)	Roll (m^2/box)	Price €/m^2
EV8HTBL06	6	30	30,144
EV8HTBL10	9	20	32,469
EV8HTBL13	13	14	41,035
EV8HTBL16	16	12	45,883
EV8HTBL19	19	10	59,021
EV8HTBL25	25	8	76,397
EV8HTBL32	32	6	88,541

For self-adhesive sheet rolls please add 3,00 euros/m onto the discounted net price.

Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

IT-FLEX HI TECH - ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRON3HT	10	50	24	28,812

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \le 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \le 8$	± 1	3,0 mm	$D_{iD}+1 \le D_i \le D_{iD}+4$	$D_{iD}+1 \le D_i \le D_{iD}+6$
			$8 < d_D \le 18$	± 1,5	-		
			$18 < d_D \le 31$	± 2,5	-	-	-
			$d_D > 31$	± 3	-		
Sheets	± 1,5%	± 2%	$d_D \le 6$	± 1	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	± 1,5	-		
			$d_D > 19$	± 2	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \le 6$	± 1	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	± 1,5	-		
			$d_D > 19$	± 2	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	- 0.1 + 1,5	-	-	-

IT-FLEX UV PROTECTION

- ★ Excellent insulation performance
- ★ Closed-cell microcellular structure
- ★ High water vapour diffusion resistance
- ★ Good flexibility
- ★ Good mechanical resistance
- ★ Good UV resistance
- ★ λ at 0 °C $\leq$ 0,034 W/m•K
- ★ $\mu \geq 10000$

IT-FLEX UV PROTECTION

Technical data sheet

Rev. 03/20

MATERIAL	Closed-cell flexible elastomeric foam (FEF), coupled with polyolefin film with high UV resistance.
PRODUCT SPECIFICATION	Thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Standard and self-adhesive sheets in rolls with thicknesses from 6 to 32 mm. Adhesive tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications. Also suitable for external use.
MAIN CHARACTERISTICS	CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706
THERMAL CONDUCTIVITY λ	At mean temp. of 0 °C ≤ 0,034 W/m•K At mean temp. of 40 °C ≤ 0,038 W/m•K	EN 12667
WATER VAPOUR DIFFUSION FACTOR μ only on elastomer	Sheets thk. 6-32 mm μ ≥ 10000	EN 12086
REACTION TO FIRE	EUROCLASS E	EN 13501 - 1
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	

TECHNICAL CHARACTERISTICS OF THE EXTERNAL PROTECTIVE COATING

TYPE	POLYOLEFIN UV RESISTANT FILM
TOTAL THICKNESS	50 μm
COLOUR	BLACK RAL 9005

*** NOTE: for lower temperature applications please contact our technical dept.**

For self adhesive sheets and tapes, the maximum service temperature is 85 °C.

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IT-FLEX UV PROTECTION - ELASTOMER COUPLED TO A BLACK POLYOLEFIN UV RESISTANT FILM.
SHEETS IN ROLLS: H 1 m

NON-ADHESIVE SHEETS

Code	Thickness (mm)	Roll (m^2/box)	Price €/m^2
EV8UVBL06	6	30	**23,937**
EV8UVBL10	9	20	**29,674**
EV8UVBL13	13	14	**36,046**
EV8UVBL16	16	12	**41,201**
EV8UVBL19	19	10	**48,782**
EV8UVBL25	25	8	**65,167**
EV8UVBL32	32	6	**76,169**

For self-adhesive sheet rolls please add 3,00 euros/m onto the discounted net price.

Packaging dimensions: 108 x 54 x 54 cm - Packaging volume = 0,31 m^3

IT-FLEX UV PROTECTION - ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc./box)	Price €/roll
EV8NASTROUV	10	50	24	**17,100**

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \le 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \le 8$	**± 1**	3,0 mm	$D_{iD}+1 \le D_i \le D_{iD}+4$	$D_{iD}+1 \le D_i \le D_{iD}+6$
			$8 < d_D \le 18$	**± 1,5**	-		
			$18 < d_D \le 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX COVER

- ★ Good mechanical resistance
- ★ Good adaptability to the surface to be covered
- ★ Excellent aesthetic appearance of the finishing
- ★ Good UV resistance

IT-FLEX COVER

Technical data sheet

Rev. 03/20

MATERIAL	Multilayer self wrapping sheet in PVC/Aluminium/UV protection film.
PRODUCT SPECIFICATION	Protective cover for insulated pipeworks.
PRODUCT RANGE	Sheets, rolls, tapes, elbows and special shaped products with a thickness of 230 μm.
PRODUCT APPLICATION	Surface covering and finishing of insulations.
MAIN CHARACTERISTICS	Also suitable also for external applications.

Technical information	Reference data	Test standards
TOTAL WEIGHT	340 g/mq	EN 22 286
THICKNESS	ca 230 μm	
BREAKING LOAD	MD 200 N/ 15mm-CD 175 N/15mm	EN ISO 527-3
ELONGATION	MD 48% - CD 51%	EN ISO 527-3
TEAR STRENGTH	MD 70 N - CD 28 N	EN ISO 527-3
BORING RESISTANCE	ø 0,8 mm 23 N - ø 0,3 mm 87 N	pr EN 14 477
TEAR STRENGHT (NAIL)	MD 50 N - CD 42 N	EN 12310-1
LOI (Oxigen Index Limit)	35,5% O_2	ASTEM D 2863 - ISO 4589
UV RESISTANCE (Stability Test)	EXCELLENT	ASTEM G 26 - ISO 4892 - 2
WATER VAPOUR DIFFUSION	< 0,028 g/mq/d	ASTM F 1429 - ISO 15106 - 2
SD (Equivalent stratus of air)	> 1500 m	
EMISSIVITY ε	94%	
SERVICE TEMPERATURE	da -25 °C a +75 °C	
REACTION TO FIRE	Class 0 - B1	BS 476 part 6 & 7 - DIN 4102 - 1
RADIANT PANEL INDEX	0,50	ASTM E 162 - 02
Flame	1 (at 1,5 min) - 3 (at 4,5 min)	ASTM E 662 - 03
No flame	0 (at 1,5 min) - 0 (at 4,5 min)	ASTM E 662 - 03

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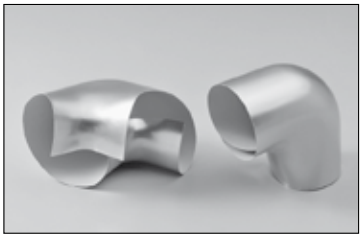
IT-FLEX COVER - COVERING ROLL IN PVC/ALU/UV PROTECTION FILM H 1 m

Thickness 230 µm

Code	Roll dimensions	m^2/roll	Price €/m^2
EV6COVER230	1 x 25 m	25	21,542
EV6COVER230 Self-Adhesive	1 x 25 m	25	23,945



IT-FLEX COVER - 90° ELBOWS Quantity 10 pc/box - Other dimensions on request

Ø Pipeworks		Insulation thickness				
		13 mm	15 mm	20 mm	25 mm	30 mm
Inches	mm	Price €/pc	Price €/pc	Price €/pc	Price €/pc	Price €/pc
	14	10,214				
3/8”	18	10,681	11,134	11,134	12,757	14,392
1/2”	22	10,681	11,134	11,318	13,873	14,845
3/4”	28	11,134	11,318	11,797	14,807	17,636
1”	35	11,318	11,7978	13,835	18,181	19,025
1-1/4”	42			15,314	19,493	22,646
1-1/2”	48			20,180	21,815	23,943
	54			20,699		25,059
	57					
2”	60			21,815	28,304	29,237
	64					
	70					
2-1/2”	76			39,205	39,905	40,593
3”	89			40,827	47,795	55,673
	102			67,274	69,131	70,065
	108					
4”	114			72,376	75,166	78,228
	127					
	134				120,858	125,738
5”	140				126,427	174,443

IT-FLEX COVER - SELF-ADHESIVE TAPES

Thickness 230 µm

Code	Dimensions Width (mm) x Length (m)	Content/box n. pc.	Price €/m^2
EV8NASTCOVE25	25 x 50	48	36,609
EV8NASTCOVE50	50 x 50	24	74,621

IT-FLEX TCA

- ★ Good mechanical resistance
- ★ Excellent aesthetic appearance of the finishing
- ★ Good UV resistance

IT-FLEX TCA

Technical data sheet

Rev. 03/20

MATERIAL	**ALU sheet (99,5%)**
PRODUCT SPECIFICATION	**External protective covering of insulation**
PRODUCT RANGE	**Tubes, elbow and special shaped parts with diameters from 70 mm to 500 mm, and thicknesses from 0,5 to 1 mm.**
PRODUCT APPLICATION	**Surface covering protection for insulations. Also suitable for external applications.**

Tubes: Diameters from 70 mm up to 300 mm, 1 m in length, thicknesses from 0,6 mm

Elbows: Diameters from 70 mm up to 300 mm, produced in segments with 3,2 mm double hole.

Special parts: Diameters from 70 to 300 mm, T connectors and reducers: H. 100,150, 200 mm

TECHNICAL INFORMATION

Mechanical properties

	Yield strength load % 0,2 (mpa)	Tensil strength % 0,2 (mpa)	Elongation (A50) %
Standard	120	140	1
Test results	188,21	195.78	46,7

Chemical composition

		Sl %	Fe %	Cu %	Mn %	Mg %	Zn %	Ti %	Al %
Standard	Min								99,50
	Max	0,25	0,40	0,05	0,05	0,05	0,07	0,05	
Test results		0,087	0,353	0,006	0,004	0,002	0,009	0,0065	99,534

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IT-FLEX TCA TUBE H 1 m, AND ELBOW COVERINGS IN ALUMINIUM

ø external PIPE (mm)	Code Thickness 6/10	Circumference	Price €/m
70	EV4TAL070X022	22	30,497
80	EV4TAL080X026	26	29,290
90	EV4TAL090X028	28	32,585
100	EV4TAL100X032	32	33,845
110	EV4TAL110X036	36	36,375
120	EV4TAL120X038	38	39,309
130	EV4TAL130X042	42	42,631
140	EV4TAL140X044	44	44,732
150	EV4TAL150X048	48	48,445
160	EV4TAL160X050	50	50,132
170	EV4TAL170X053	53	52,649
180	EV4TAL180X056	56	55,582
190	EV4TAL190X060	60	59,359
200	EV4TAL200X064	64	63,083
210	EV4TAL210X066	66	64,783
220	EV4TAL220X070	70	68,508
230	EV4TAL230X072	72	70,208
240	EV4TAL240X077	77	74,567
250	EV4TAL250X080	80	77,332
260	EV4TAL260X082	82	79,396
270	EV4TAL270X085	85	81,926
280	EV4TAL280X088	88	93,190
290	EV4TAL290X091	91	96,518
300	EV4TAL300X097	97	99,847

ø ELBOWS (mm)	Code Thickness 6/10	Circumference	Price €/m
70	EV4CAL070X022	22	38,011
80	EV4CAL080X026	26	38,425
90	EV4CAL090X028	28	38,854
100	EV4CAL100X032	32	38,854
110	EV4CAL110X036	36	39,632
120	EV4CAL120X038	38	41,386
130	EV4CAL130X042	42	42,631
140	EV4CAL140X044	44	45,538
150	EV4CAL150X048	48	47,212
160	EV4CAL160X050	50	50,547
170	EV4CAL170X053	53	54,325
180	EV4CAL180X056	56	62,265
190	EV4CAL190X060	60	68,508
200	EV4CAL200X064	64	73,140
210	EV4CAL210X066	66	81,926
220	EV4CAL220X070	70	85,625
230	EV4CAL230X072	72	91,881
240	EV4CAL240X077	77	94,436
250	EV4CAL250X080	80	98,602
260	EV4CAL260X082	82	100,678
270	EV4CAL270X085	85	103,195
280	EV4CAL280X088	88	107,362
290	EV4CAL290X091	91	119,069
300	EV4CAL300X097	97	119,069

NOTE - For other thicknesses and diameters please contact our technical dept.

IT-FLEX SYSTEM COVER

- ★ Composite insulation system with external protection
- ★ Closed-cell microcellular structure
- ★ Excellent insulation performance
- ★ High water vapour diffusion resistance
- ★ High mechanical resistance
- ★ Quick and easy to install
- ★ λ at 0 °C ≤ 0,034 W/m•K
- ★ $\mu \geq 10000$

IT-FLEX SYSTEM COVER

Technical data sheet
(ELASTOMERIC INSULATION IT-FLEX C1)

Rev. 03/20 A

MATERIAL	Closed-cell flexible elastomeric foam (FEF).
PRODUCT SPECIFICATION	Flexible and expanded rubber foam thermal insulation material produced in accordance with the European Standard EN 14304.
PRODUCT RANGE	Self-adhesive and standard tubes in bars, and in continuous rolls with diameters from 6 to 170 mm and thickness from 6 to 60 mm. Sheets in panels and rolls, standard and self-adhesive, with thicknesses from 6 to 60 mm. Tapes with a thickness of 3 mm.
PRODUCT APPLICATION	Thermal insulation of HVAC, refrigeration systems and industrial applications, also for exterior use (C1R version).
MAIN CHARACTERISTICS	Flexible and expanded CFC and HCFC-free rubber foam. Does not contain or release dust or fibres.

Technical information	Reference data	Test standards
SERVICE TEMPERATURES Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 110 °C - 45 °C *	 EN 14706 - 14707
THERMAL CONDUCTIVITY λ	Sheets, tapes, tubes 6-25 mm: at 0 °C λ ≤ 0,034 W/m•K; at 20 °C λ ≤ 0,036 W/m•K; at 40 °C λ ≤ 0,038 W/m•K Tubes 32-60 mm: at 0 °C λ ≤ 0,036 W/m•K; at 20 °C λ ≤ 0,038 W/m•K; at 40 °C λ ≤ 0,040 W/m•K	EN ISO 8497 - EN 12667
RESISTANCE TO THE VAPOUR WATER DIFFUSION μ only on elastomer	Sheets and tubes μ ≥10000	EN 13469 - EN 12086
REACTION TO FIRE of elastomer	EUROCLASS { TUBES B_L - s2, d0; SHEETS B - s3, d0; SHEETS 60 mm: E; TAPE B - s2, d0 }	EN 13501 - 1
UK	CLASS 1	BS 476 : PART 6 - BS 476 : PART 7
UK	CLASS 0	
USA	UL V0 up to thk. 13 mm	
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468
OZONE RESISTANCE	EXCELLENT	ISO 7325
UV RESISTANCE	GOOD	UNI ISO 4892 - 2
DIMENSIONAL TOLERANCES	In accordance with table 1 - European Standard EN 14304	
REACTION TO FIRE OF THE COMPLETE SYSTEM (ELASTOMER + CLADDING)	EUROCLASS { TUBES C_L - s2, d0; SHEETS C - s3, d0 }	EN 13501 - 1

*** NOTE: for lower temperature applications please contact our technical dept.**

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IT-FLEX SYSTEM COVER

Technical data sheet
(EXTERNAL PROTECTIVE COVER)

Rev. 03/20 B

MATERIAL	Self wrapping multilayer coating of PVC/ALU/UV protection films.
PRODUCT SPECIFICATION	Protective covering of insulated pipeworks
PRODUCT RANGE	Rolls, tapes, elbows and special shapes with a thickness of 230 μm.
PRODUCT APPLICATION	Surface covering and finishing of insulations.
MAIN CHARACTERISTICS	Also suitable for external applications.

Technical Information	Reference data	Test standards
TOTAL WEIGHT	340 g/mq	EN 22 286
THICKNESS	approx. 230 μm	
BREAKING LOAD	MD 200 N/ 15mm-CD 175 N/15mm	EN ISO 527-3
ELONGATION	MD 48% - CD 51%	EN ISO 527-3
TEAR STRENGTH	MD 70 N - CD 28 N	EN ISO 527-3
BORING RESISTANCE	ø 0,8 mm 23 N - ø 0,3 mm 87 N	pr EN 14 477
TEAR STRENGHT (NAIL)	MD 50 N - CD 42 N	EN 12310-1
LOI (Oxigen Index Limit)	35,5% O_2	ASTEM D 2863 - ISO 4589
UV RESISTANCE (Stability Test)	EXCELLENT	ASTEM G 26 - ISO 4892 - 2
WATER VAPOUR DIFFUSION	< 0,028 g/mq/d	ASTM F 1429 - ISO 15106 - 2
SD (Equivalent stratus of air)	> 1500 m	
EMISSIVITY ε	94%	
SERVICE TEMPERATURE	from -25 °C to +65 °C	
REACTION TO FIRE	Class 0 - B1	BS 476 part 6 & 7 - DIN 4102 - 1
RADIANT PANEL INDEX	0,50	ASTM E 162 - 02
Flame	1 (at 1,5 min) - 3 (at 4,5 min)	ASTM E 662 - 03
No flame	0 (at 1,5 min) - 0 (at 4,5 min)	ASTM E 662 - 03
REACTION TO FIRE OF THE COMPLETE SYSTEM (ELASTOMER + CLADDING)	EUROCLASS { TUBES C_L - s2, d0 / SHEETS C - s3, d0	EN 13501 - 1

For self adhesive sheets and tapes, the maximum service temperature is 85 °C.

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IT-FLEX SYSTEM COVER - PRE-CUT, SELF-ADHESIVE TUBES: LENGTH 1 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **9** mm			Thickness **13** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
							EV1C09X015	99	**27,421**	**EV1C13X015**	73	**30,197**
15,87	16	5/8”				16						
	18		17,20	3/8”	10		**EV1C09X018**	81	**28,109**	**EV1C13X018**	62	**30,886**
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV1C09X022**	71	**28,874**	**EV1C13X022**	58	**31,885**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV1C09X028**	52	**30,353**	**EV1C13X028**	43	**33,299**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV1C09X035**	39	**32,066**	**EV1C13X035**	31	**36,584**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV1C09X042**	32	**34,961**	**EV1C13X042**	27	**38,685**
			48,30	1-1/2”	40		**EV1C09X048**	28	**38,036**	**EV1C13X048**	21	**41,683**
						50						
53,97	54	2”					**EV1C09X054**	24	**39,283**	**EV1C13X054**	20	**43,421**
			60,30	2”	50		**EV1C09X060**	24	**40,308**	**EV1C13X060**	18	**44,667**
	64					63	**EV1C09X064**	24	**44,338**	**EV1C13X064**	18	**49,134**
	70											
	76,10		76,10	2-1/2”	65	75	**EV1C09X076**	20	**51,209**	**EV1C13X076**	12	**53,933**
	80											
	88,90		88,90	3”	80	90	**EV1C09X089**	13	**53,778**	**EV1C13X089**	12	**57,127**
		4-1/4”	101,3/104,3	3-1/2”			**EV1C09X102**	10	**62,447**	**EV1C13X102**	9	**71,168**
	108	4-1/2”					**EV1C09X108**	10	**66,002**	**EV1C13X108**	8	**72,751**
	114		114,30	4”	100	110	**EV1C09X114**	8	**71,233**	**EV1C13X114**	8	**73,958**
						125	**EV1C09X125**	8	**104,702**	**EV1C13X125**	7	**108,387**
	133						**EV1C09X133**	6	**107,427**	**EV1C13X133**	6	**110,788**
						140	**EV1C09X140**	6	**109,763**	**EV1C13X140**	6	**113,046**
	159	6-1/4”	159			160	**EV1C09X160**	4	**137,068**	**EV1C13X160**	4	**140,122**

IT-FLEX SYSTEM COVER - PRE-CUT, SELF-ADHESIVE TUBES: LENGTH 1 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **19** mm			Thickness **25** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	**Price €/m**	Code	m/box	**Price €/m**
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
							EV1C19X015	47	**34,545**			
15,87	16	5/8”				16						
	18		17,20	3/8”	10		**EV1C19X018**	42	**35,389**	**EV1C25X018**	30	**43,461**
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		**EV1C19X022**	33	**36,441**	**EV1C25X022**	27	**44,577**
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					**EV1C19X028**	27	**40,217**	**EV1C25X028**	22	**46,796**
						32						
34,92	35	1-3/8”	33,70	1”	25		**EV1C19X035**	21	**42,578**	**EV1C25X035**	16	**49,509**
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV1C19X042**	20	**44,667**	**EV1C25X042**	15	**51,209**
			48,30	1-1/2”	40		**EV1C19X048**	16	**48,158**	**EV1C25X048**	12	**57,697**
						50						
53,97	54	2”					**EV1C19X054**	15	**49,950**	**EV1C25X054**	11	**65,990**
			60,30	2”	50		**EV1C19X060**	15	**51,727**	**EV1C25X060**	9	**70,026**
	64					63	**EV1C19X064**	15	**56,642**			
	70											
	76,10		76,10	2-1/2”	65	75	**EV1C19X076**	11	**60,046**	**EV1C25X076**	8	**76,709**
	80											
	88,90		88,90	3”	80	90	**EV1C19X089**	9	**64,627**	**EV1C25X089**	6	**83,224**
		4-1/4”	101,3/104,3	3-1/2”			**EV1C19X102**	7	**75,800**	**EV1C25X102**	4	**90,010**
	108	4-1/2”					**EV1C19X108**	7	**77,463**	**EV1C25X108**	3	**95,060**
	114		114,30	4”	100	110	**EV1C19X114**	6	**79,200**	**EV1C25X114**	3	**98,733**
						125	**EV1C19X125**	5	**118,899**	**EV1C25X125**	3	**128,087**
	133						**EV1C19X133**	4	**122,300**	**EV1C25X133**	3	**152,821**
						140	**EV1C19X140**	4	**124,544**	**EV1C25X140**	2	**155,443**
	159	6-1/4”	159			160	**EV1C19X160**	3	**151,835**	**EV1C25X160**	2	**160,830**

IT-FLEX SYSTEM COVER - PRE-CUT, SELF-ADHESIVE TUBES: LENGTH 1 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **32** mm		
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m
6,35	6	1/4”							
7,93	8	5/16”							
9,52	10	3/8”	10,10	1/8”	6				
12,70	12	1/2”							
	14		13,60	1/4”	8				
15,87	16	5/8”				16			
	18		17,20	3/8”	10		**EV1C32X018**	16	**51,143**
19,05		3/4”				20			
22,22	22	7/8”	21,30	1/2”	15		**EV1C32X022**	15	**52,454**
25,40		1”				25			
			26,90	3/4”	20				
28,57	28	1-1/8”					**EV1C32X028**	12	**56,036**
						32			
34,92	35	1-3/8”	33,70	1”	25		**EV1C32X035**	11	**57,853**
						40			
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV1C32X042**	11	**63,330**
			48,30	1-1/2”	40		**EV1C32X048**	9	**71,247**
						50			
53,97	54	2”					**EV1C32X054**	8	**74,867**
			60,30	2”	50		**EV1C32X060**	8	**82,108**
	64					63			
	70								
	76,10		76,10	2-1/2”	65	75	**EV1C32X076**	6	**100,251**
	80								
	88,90		88,90	3”	80	90	**EV1C32X089**	4	**106,492**
		4-1/4”	101,3/104,3	3-1/2”			**EV1C32X102**	4	**130,916**
	108	4-1/2”					**EV1C32X108**	3	**133,136**
	114		114,30	4”	100	110	**EV1C32X114**	3	**136,457**
						125	**EV1C32X125**	3	**181,087**
	133						**EV1C32X133**	2	**185,188**
						140	**EV1C32X140**	2	**189,159**
	159	6-1/4”	159			160	**EV1C32X160**	2	**197,582**

IT-FLEX SYSTEM COVER - PRE-CUT, SELF-ADHESIVE TUBES: LENGTH 1 m

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES									
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	m/box	Price €/m	Code	m/box	Price €/m	Code	m/box	Price €/m
6,35	6	1/4”													
7,93	8	5/16”													
9,52	10	3/8”	10,10	1/8”	6										
12,70	12	1/2”													
	14		13,60	1/4”	8										
							EV1C19X015	47	34,545	EV1C09X015	99	27,421			
15,87	16	5/8”				16									
	18		17,20	3/8”	10		EV1C19X018	42	35,389	EV1C09X018	81	28,109			
19,05		3/4”				20									
22,22	22	7/8”	21,30	1/2”	15		EV1C32X022	15	52,454	EV1C15X022	58	32,260	EV1C09X022	71	28,874
25,40		1”				25									
			26,90	3/4”	20										
28,57	28	1-1/8”					EV1C32X028	12	56,036	EV1C15X028	43	33,594	EV1C09X028	52	30,353
						32									
34,92	35	1-3/8”	33,70	1”	25		EV1C32X035	11	57,853	EV1C15X035	31	36,693	EV1C09X035	39	32,066
						40									
41,27	42	1-5/8”	42,40	1-1/4”	32		EV1C40X042	7	91,426	EV1C19X042	20	44,667	EV1C13X042	27	38,685
			48,30	1-1/2”	40		EV1C40X048	5	117,550	EV1C19X048	16	48,158	EV1C13X048	21	41,683
						50									
53,97	54	2”					EV1C40X054	5	138,962	EV1C19X054	15	49,950	EV1C13X054	20	43,421
			60,30	2”	50		EV1C50X060	3	143,012	EV1C25X060	9	70,026	EV1C15X060	18	44,319
	64					63									
	70														
	76,10		76,10	2-1/2”	65	75	EV1C50X076	3	172,211	EV1C25X076	8	76,709	EV1C15X076	12	53,060
	80														
	88,90		88,90	3”	80	90	EV1C55X089	3	315,468	EV1C32X089	4	106,492	EV1C19X089	9	64,627
			101,3/104,3	3-1/2”											
	108	4-1/4”													
	114	4-1/2”	114,30	4”	100	110	EV1C60X114	2	420,061	EV1C32X114	3	136,457	EV1C19X114	6	79,200

Packaging dimensions: 104 x 40 x 40 cm.
Packaging volume = 0,17 m³

IT-FLEX SYSTEM COVER - SHAPE 3 ELBOWS

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **9** mm		Thickness **13** mm		Thickness **19** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV2CC09X018	40,062	EV2CC13X018	40,385	EV2CC19X018	43,993
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV2CC09X022	41,942	EV2CC13X022	42,293	EV2CC19X022	46,265
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV2CC09X028	43,227	EV2CC13X028	43,551	EV2CC19X028	47,964
						32						
34,92	35	1-3/8”	33,70	1”	25		EV2CC09X035	43,579	EV2CC13X035	44,200	EV2CC19X035	49,520
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CC09X042	46,238	EV2CC13X042	47,016	EV2CC19X042	51,532
			48,30	1-1/2”	40		EV2CC09X048	48,472	EV2CC13X048	49,444	EV2CC19X048	53,674
						50						
53,97	54	2”					EV2CC09X054	51,662	EV2CC13X054	51,962	EV2CC19X054	55,855
			60,30	2”	50		EV2CC09X060	53,272	EV2CC13X060	54,102	EV2CC19X060	57,983
	64					63	EV2CC09X064	58,881			EV2CC19X064	63,781
	70											
	76,10		76,10	2-1/2”	65	75	EV2CC09X076	61,979	EV2CC13X076	62,705	EV2CC19X076	68,391
	80											
	88,90		88,90	3”	80	90	EV2CC09X089	65,332	EV2CC13X089	66,691	EV2CC19X089	71,985
			101,3/104,3	3-1/2”			EV2CC09X102	74,192	EV2CC13X102	76,345	EV2CC19X102	82,121
	108	4-1/4”					EV2CC09X108	77,463	EV2CC13X108	78,928	EV2CC19X108	88,687
	114	4-1/2”	114,30	4”	100	110	EV2CC09X114	81,445	EV2CC13X114	85,170	EV2CC19X114	94,866
						125	EV2CC09X125	87,377	EV2CC13X125	91,243	EV2CC19X125	101,198
	133						EV2CC09X133	90,543	EV2CC13X133	94,371	EV2CC19X133	110,633
			139,70	5”	125	140	EV2CC09X140	98,473	EV2CC13X140	102,871	EV2CC19X140	119,107
	159	6-1/4”	159			160	EV2CC09X160	105,155	EV2CC13X160	110,308	EV2CC19X160	128,917

IT-FLEX SYSTEM COVER - SHAPE 3 ELBOWS

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **25** mm		Thickness **32** mm		Thickness **40** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV2CC25X018	46,849	EV2CC32X018	56,919	EV2CC40X018	65,899
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV2CC25X022	49,107	EV2CC32X022	57,749	EV2CC40X022	67,093
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV2CC25X028	51,183	EV2CC32X028	59,709	EV2CC40X028	70,674
						32						
34,92	35	1-3/8”	33,70	1”	25		EV2CC25X035	53,285	EV2CC32X035	62,888	EV2CC40X035	76,216
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CC25X042	56,036	EV2CC32X042	69,636	EV2CC40X042	83,821
			48,30	1-1/2”	40		EV2CC25X048	58,295	EV2CC32X048	72,220	EV2CC40X048	85,338
						50						
53,97	54	2”					EV2CC25X054	61,175	EV2CC32X054	73,699	EV2CC40X054	91,387
			60,30	2”	50		EV2CC25X060	63,757	EV2CC32X060	79,396	EV2CC40X060	95,720
	64					63						
	70											
	76,10		76,10	2-1/2”	65	75	EV2CC25X076	74,983	EV2CC32X076	92,360	EV2CC40X076	118,457
	80											
	88,90		88,90	3”	80	90	EV2CC25X089	83,173	EV2CC32X089	96,019	EV2CC40X089	145,089
			101,3/104,3	3-1/2”			EV2CC25X102	96,824	EV2CC32X102	115,227	EV2CC40X102	172,625
	108	4-1/4”					EV2CC25X108	102,871	EV2CC32X108	124,065	EV2CC40X108	185,889
	114	4-1/2”	114,30	4”	100	110	EV2CC25X114	112,514	EV2CC32X114	135,614	EV2CC40X114	195,336
						125	EV2CC25X125	119,224	EV2CC32X125	154,353	EV2CC40X125	211,168
	133						EV2CC25X133	122,443	EV2CC32X133	160,244	EV2CC40X133	243,638
			139,70	5”	125	140	EV2CC25X140	130,462	EV2CC32X140	170,432	EV2CC40X140	276,118
	159	6-1/4”	159			160	EV2CC25X160	143,466	EV2CC32X160	196,245	EV2CC40X160	299,752

IT-FLEX SYSTEM COVER - SHAPE 3 ELBOWS

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **50** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc
6,35	6	1/4”						
7,93	8	5/16”						
9,52	10	3/8”	10,10	1/8”	6			
12,70	12	1/2”						
	14		13,60	1/4”	8			
15,87	16	5/8”				16		
	18		17,20	3/8”	10		**EV2CC50X018**	**77,890**
19,05		3/4”				20		
22,22	22	7/8”	21,30	1/2”	15		**EV2CC50X022**	**90,829**
25,40		1”				25		
			26,90	3/4”	20			
28,57	28	1-1/8”					**EV2CC50X028**	**94,476**
						32		
34,92	35	1-3/8”	33,70	1”	25		**EV2CC50X035**	**98,538**
						40		
41,27	42	1-5/8”	42,40	1-1/4”	32		**EV2CC50X042**	**109,062**
			48,30	1-1/2”	40		**EV2CC50X048**	**112,060**
						50		
53,97	54	2”					**EV2CC50X054**	**114,823**
			60,30	2”	50		**EV2CC50X060**	**130,423**
	64					63		
	70							
	76,10		76,10	2-1/2”	65	75	**EV2CC50X076**	**149,487**
	80							
	88,90		88,90	3”	80	90	**EV2CC50X089**	**187,330**
			101,3/104,3	3-1/2”			**EV2CC50X102**	**221,122**
	108	4-1/4”					**EV2CC50X108**	**235,254**
	114	4-1/2”	114,30	4”	100	110	**EV2CC50X114**	**244,248**
						125	**EV2CC50X125**	**328,497**
	133						**EV2CC50X133**	**339,413**
			139,70	5”	125	140	**EV2CC50X140**	**362,615**
	159	6-1/4”	159			160	**EV2CC50X160**	**394,878**

IT-FLEX SYSTEM COVER
1B SHAPE ELBOWS (with thickness loss)

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **9** mm		Thickness **13** mm		Thickness **19** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV2CCB09X018	40,062	EV2CCB13X018	40,385	EV2CCB19X018	43,993
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV2CCB09X022	41,942	EV2CCB13X022	42,293	EV2CCB19X022	46,265
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV2CCB09X028	43,227	EV2CCB13X028	43,551	EV2CCB19X028	47,964
						32						
34,92	35	1-3/8”	33,70	1”	25		EV2CCB09X035	43,579	EV2CCB13X035	44,200	EV2CCB19X035	49,520
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CCB09X042	46,238	EV2CCB13X042	47,016	EV2CCB19X042	51,532
			48,30	1-1/2”	40		EV2CCB09X048	48,472	EV2CCB13X048	49,444	EV2CCB19X048	53,674
						50						
53,97	54	2”					EV2CCB09X054	51,662	EV2CCB13X054	51,962	EV2CCB19X054	55,855
			60,30	2”	50		EV2CCB09X060	53,272	EV2CCB13X060	54,102	EV2CCB19X060	57,983
	64					63						
	70											
	76,10		76,10	2-1/2”	65	75	EV2CCB09X076	61,979	EV2CCB13X076	62,705	EV2CCB19X076	68,391
	80											
	88,90		88,90	3”	80	90	EV2CCB09X089	65,332	EV2CCB13X089	66,691	EV2CCB19X089	71,985
			101,3/104,3	3-1/2”			EV2CCB09X102	74,192	EV2CCB13X102	76,345	EV2CCB19X102	82,121
	108	4-1/4”					EV2CCB09X108	77,463	EV2CCB13X108	78,928	EV2CCB19X108	88,687
	114	4-1/2”	114,30	4”	100	110	EV2CCB09X114	81,445	EV2CCB13X114	85,170	EV2CCB19X114	94,866
						125	EV2CCB09X125	87,377	EV2CCB13X125	91,243	EV2CCB19X125	101,198
	133						EV2CCB09X133	90,543	EV2CCB13X133	94,371	EV2CCB19X133	110,633
			139,70	5”	125	140	EV2CCB09X140	98,473	EV2CCB13X140	102,871	EV2CCB19X140	119,107
	159	6-1/4”	159			160	EV2CCB09X160	105,155	EV2CCB13X160	110,308	EV2CCB19X160	128,917

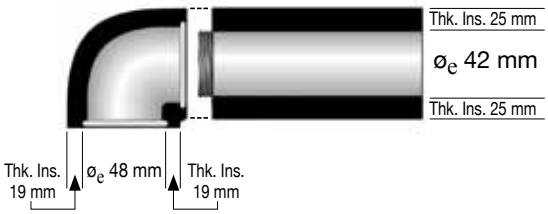
IT-FLEX SYSTEM COVER
1B SHAPE ELBOWS (with thickness loss)

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **25** mm		Thickness **32** mm		Thickness **40** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc	Code	Price €/pc	Code	Price €/pc
6,35	6	1/4”										
7,93	8	5/16”										
9,52	10	3/8”	10,10	1/8”	6							
12,70	12	1/2”										
	14		13,60	1/4”	8							
15,87	16	5/8”				16						
	18		17,20	3/8”	10		EV2CCB25X018	46,849	EV2CCB32X018	56,919	EV2CCB40X018	65,899
19,05		3/4”				20						
22,22	22	7/8”	21,30	1/2”	15		EV2CCB25X022	49,107	EV2CCB32X022	57,749	EV2CCB40X022	67,093
25,40		1”				25						
			26,90	3/4”	20							
28,57	28	1-1/8”					EV2CCB25X028	51,183	EV2CCB32X028	59,709	EV2CCB40X028	70,674
						32						
34,92	35	1-3/8”	33,70	1”	25		EV2CCB25X035	53,285	EV2CCB32X035	62,888	EV2CCB40X035	76,216
						40						
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CCB25X042	56,036	EV2CCB32X042	69,636	EV2CCB40X042	83,821
			48,30	1-1/2”	40		EV2CCB25X048	58,295	EV2CCB32X048	72,220	EV2CCB40X048	85,338
						50						
53,97	54	2”					EV2CCB25X054	61,175	EV2CCB32X054	73,699	EV2CCB40X054	91,387
			60,30	2”	50		EV2CCB25X060	63,757	EV2CCB32X060	79,396	EV2CCB40X060	95,720
	64					63						
	70											
	76,10		76,10	2-1/2”	65	75	EV2CCB25X076	74,983	EV2CCB32X076	92,360	EV2CCB40X076	118,457
	80											
	88,90		88,90	3”	80	90	EV2CCB25X089	83,173	EV2CCB32X089	96.019	EV2CCB40X089	145,089
			101,3/104,3	3-1/2”			EV2CCB25X102	96,824	EV2CCB32X102	115,227	EV2CCB40X102	172,625
	108	4-1/4”					EV2CCB25X108	102,871	EV2CCB32X108	124,065	EV2CCB40X108	185,889
	114	4-1/2”	114,30	4”	100	110	EV2CCB25X114	112,514	EV2CCB32X114	135,614	EV2CCB40X114	195,336
						125	EV2CCB25X125	119,224	EV2CCB32X125	154,353	EV2CCB40X125	211,168
	133						EV2CCB25X133	122,443	EV2CCB32X133	160,244	EV2CCB40X133	243,638
			139,70	5”	125	140	EV2CCB25X140	130,462	EV2CCB32X140	170,432	EV2CCB40X140	276,118
	159	6-1/4”	159			160	EV2CCB25X160	143,466	EV2CCB32X160	196,245	EV2CCB40X160	299,752

IT-FLEX SYSTEM COVER
1B SHAPE ELBOWS (with thickness loss)

COPPER TUBES (CU)			STEEL TUBES (FE)			PE/PP/PVC TUBES	Thickness **50** mm	
ø ext. mm	ø ext. mm	ø inches	ø ext. mm	ø inches	DN mm	ø ext. mm	Code	Price €/pc
6,35	6	1/4”						
7,93	8	5/16”						
9,52	10	3/8”	10,10	1/8”	6			
12,70	12	1/2”						
	14		13,60	1/4”	8			
15,87	16	5/8”				16		
	18		17,20	3/8”	10		EV2CCB50X018	77,890
19,05		3/4”				20		
22,22	22	7/8”	21,30	1/2”	15		EV2CCB50X022	90,829
25,40		1”				25		
			26,90	3/4”	20			
28,57	28	1-1/8”					EV2CCB50X028	94,476
						32		
34,92	35	1-3/8”	33,70	1”	25		EV2CCB50X035	98,538
						40		
41,27	42	1-5/8”	42,40	1-1/4”	32		EV2CCB50X042	109,062
			48,30	1-1/2”	40		EV2CCB50X048	112,060
						50		
53,97	54	2”					EV2CCB50X054	114,823
			60,30	2”	50		EV2CCB50X060	130,423
	64					63		
	70							
	76,10		76,10	2-1/2”	65	75	EV2CCB50X076	149,487
	80							
	88,90		88,90	3”	80	90	EV2CCB50X089	187,330
			101,3/104,3	3-1/2”			EV2CCB50X102	221,122
	108	4-1/4”					EV2CCB50X108	235,254
	114	4-1/2”	114,30	4”	100	110	EV2CCB50X114	244,248
						125	EV2CCB50X125	328,487
	133						EV2CCB50X133	339,413
			139,70	5”	125	140	EV2CCB50X140	362,615
	159	6-1/4”	159			160	EV2CCB50X160	394,878

Indications for choosing the SYSTEM COVER shape 1/B elbow (type with insulation thickness loss) for fittings threaded in cast iron.



NB: In order to maintain a constant external dimension of the insulation system, the diagram shows how, when ordering the insulation for elbows and T pieces, the following factors should be taken into consideration:

1) The increase in diameter of the pipework (elbows and T pieces).

2) The reduction of the insulation thickness on the pipework (elbows and T pieces).

IT-FLEX SYSTEM COVER
ELASTOMERIC FOAM SHEET COATED WITH A FOIL IN PVC+ALU+UV PROTECTION FILM - SHEETS H 1 m

NON-ADHESIVE SHEETS				SELF-ADHESIVE SHEETS			
Code	Thickness (mm)	Roll (m^2/box)	**Price €/m^2**	Code	Thickness (mm)	Roll (m^2/box)	**Price €/m^2**
EV1CBL06	6	30	**52,842**	**EV1CBLA06**	6	30	**60,466**
EV1CBL10	9	20	**60,783**	**EV1CBLA10**	9	20	**68,905**
EV1CBL13	13	14	**65,127**	**EV1CBLA13**	13	14	**73,625**
EV1CBL19	19	10	**73,568**	**EV1CBLA19**	19	10	**82,816**
EV1CBL25	25	8	**86,583**	**EV1CBLA25**	25	8	**96,581**
EV1CBL32	32	6	**101,878**	**EV1CBLA32**	32	6	**113,000**

Packaging dimensions: 108 x 54 x 54 cm
Packaging volume = 0,31 m^3

NB: FOR EXTERNAL APPLICATIONS IT IS ADVISABLE TO ATTACH THE SYSTEM USING SMALL PLASTIC TACKS AS ILLUSTRATED IN THE PHOTOGRAPHS. IT IS ALSO RECOMMENDED TO SEAL THE SYSTEM WITH ALUMINIUM COLOURED MARINE SILICONE SEALANT.

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \leq 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \leq 8$	**± 1**	3,0 mm	$D_{iD}+1 \leq D_i \leq D_{iD}+4$	$D_{iD}+1 \leq D_i \leq D_{iD}+6$
			$8 < d_D \leq 18$	**± 1,5**	-		
			$18 < d_D \leq 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \leq 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \leq 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

IT-FLEX SYSTEM COVER

ULTRASOLAR 2

Composite systems consisting of two twinned tubes in corrugated stainless steel (AISI 316L), covered with high performance elastomeric insulation material, and a sensor cable. Produced in rolls of considerable lengths on bobbins, allowing for a more practical, fast and reliable installation and a reduction of waste ensuring substantial savings. The insulation covering is available both black and a brick red colour which helps to enhance the aesthetic appearance of systems.

ULTRASOLAR 2

Technical data sheet

Rev. 03/20

MATERIAL	Composite system in rolls consisting of 2 twinned tubes in corrugated stainless steel AISI 316 L, IT-FLEX AT R insulation covering and a sensor cable.
PRODUCT SPECIFICATION	**Steel:** In accordance with the European Standard EN EN 10088-2 / DIN 1744: 1.4404 **Insulation:** In accordance with the European Standard EN 143044
PRODUCT RANGE	Tubes in rolls in lengths of 10-15-20-25 m, bobbins in lengths of 50-100-150 m in DN 16-20-25. Insulation thickness of 10 mm.
PRODUCT APPLICATION	The production of thermal fluid distribution systems in solar thermal applications or applications carrying high temperature fluids (+150 °C in continuous operation; +180 °C in intermittent operation). It is also suitable for external applications.

TECHNICAL SPECIFICATIONS OF THE CORRUGATED STAINLESS STEEL AISI 316 L TUBE

DN TYPE	THICKNESS (mm)	EXTERNAL DIAMETER (mm)	TOLERANCE (mm)
16	0,18	21,6	± 0,25
20	0,18	26,6	± 0,25
25	0,20	32,2	± 0,30

TECHNICAL SPECIFICATIONS OF THE INSULATION

MAIN PROPERTIES	REFERENCE VALUES	TEST STANDARDS
SERVICE TEMPERATURE OF TRANSPORTED FLUIDS	- 45 °C* + 150 °C	EN 147607
THERMAL CONDUCTIVITY λ AT A MEAN TEMPERATURE OF + 40 °C	≤ 0,038 W/m•K	EN ISO 8497
FIRE PERFORMANCE EUROCLASS	E_L	EN 13501-1
WATER ABSORPTION	< 0.1 kg/m^2	EN 13472
OZONE RESISTANCE	EXCELLENT	ISO 7326
UV RESISTANCE	EXCELLENT	UNI ISO 4892-2
ANTIMICROBIAL BEHAVIOUR	MEETS TEST REQUIREMENTS	AATCC TEST METHOD 30 - 2004
CORROSION RISK	MEETS TEST REQUIREMENTS	EN 13468

TECHNICAL SPECIFICATIONS OF THE EXTERNAL INSULATION

TYPE	FILM IN LDPE co extruded	
COLOUR	BRICK	
THICKNESS	≅ 350 µm	
ELONGATION AT BREAK (%)	200 MD / 550 TD	ISO 527-3

TECHNICAL SPECIFICATIONS OF SENSOR CABLE

TYPE	Silicone rubber (double thread)	
SERVICE TEMPERATURE	from - 60 °C to +180 °C	
SECTION	1 mm2	EN ISO 12086
NOMINAL TENSION	Uo/U 300 / 500 V	

*** NOTE: for lower temperature applications please contact our technical dept.**

Documents and certifications are available upon registration on our website: www.evocellmobius.it

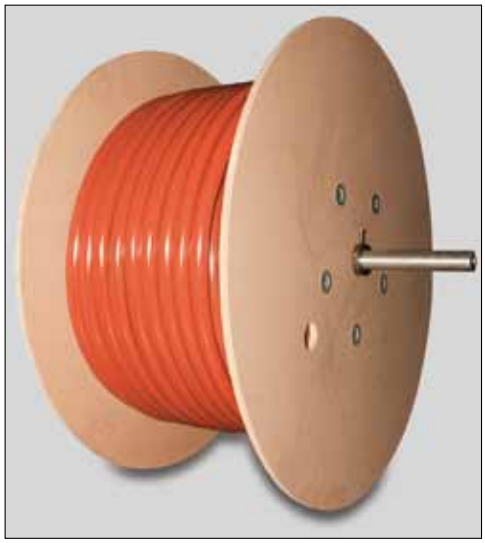
Evocell&Mobius S.r.l. reserves the right to modify data contained in this document without any obligation of notice.

All normatives quoted in this document are updated to the latest issued versions.

ULTRASOLAR 2

2 TWINNED TUBES IN CORRUGATED STAINLESS STEEL AISI 316 WITH AN INSULATION COVERING OF 10 mm.

DN TYPE	THK. STEEL TUBE (mm)	EXT. DIAMETER-STEEL TUBE	ROLL LENGTH (m)	BOBBIN LENGTH (m)
DN 16	0,18	21,6	10, 15, 20, 25	50, 100, 150
DN 20	0,18	26,6	10, 15, 20, 25	50, 100
DN 25	0,20	32,2	15, 20, 25	50, 100



NEW EVOLUTION

WINDING MACHINE FOR THE ULTRASOLAR 2 PRODUCT RANGE

This device is ideal for the packaging of the **ULTRASOLAR 2** product range. It is easy to use, ideal for cutting the material to required lengths and winding it into rolls, facilitating transport, storage and on-site management.

WINDING MACHINE STRUCTURE (figures 1 and 2)

Its load bearing structure allows it to support a bobbin holding up to 250 m of the **EUROSOLAR 2** product (of both the single and double tube versions).

COMPONENTS

1. **Cutter** - This allows the products to be easily cut. It's safe, precise and cuts without damaging the product.
2. **Meter counter** – This calculates when the required measurement should be cut, and measures both the supply and the return.
3. **Roling wheel** – This helps maintain the correct tension of the material also during the rotation stage when making the rolls.

OPERATING STAGES (sequence of figures from 3-6)

- Insert the metal bar in the hole positioned in the centre of the **ULTRASOLAR 2** bobbin.
- Raise the structure by the handgrip until the metal bar of the bobbin is hooked.

  NB : The clasping system is made with 2 hooks, a lower one (for coils up to 150 meters in length) and an upper one (for coils up to 250 meters).
- Disengage the brake lock (by removong the pin) in order to avoid tension loss during the rolling of the coil.
- Attach the winder after having hooked the bobbin on (to ensure that the operator avoids lifting excessive amounts of weight (Ref. Legislative decree 626/94 - weights greater than 30 Kg).
- Insert the **ULTRASOLAR 2** product into the specific lane through the cutter and the meter counter.
- Fasten the head of the product with the specific rod onto the rolling wheel.
  NB: Choose and fasten the rod based on the channeling which corresponds to the diameter of the product to be cut.
- The meter counter is programmed to control both the supply and the return (to avoid any errors made by the operator).
- The rolling wheel includes a pawl in order to prevent loss of tension of the material during the rolling stage.
- After the automatic start-up and when the required roll length has been reached, rotation will cease, allowing for the cutting process to begin.
- The cut roll will remain taut and can be extracted by sliding off one side of the rolling wheel. The material can now be stored, ready for packing and without any changes to the acquired structure.

Characteristics of the cutter: Power 2 KW – Rotation 3700 rpm/min

THE EVOLUTION OF ELASTOMERIC TECHNOLOGY

ACCESSORIES

A range of fittings with different types of attachments and shapes to use for connecting the various parts of the system to be installed.

ULTRASOLAR 2

EVOCELL &MOBIUS

2017/1 PRICE LIST

ULTRASOLAR 2

COMPOSITE SYSTEM IN ROLLS, COMPLETE WITH 2 TWINNED TUBES IN STAINLESS STEEL AISI 316

BOBBINS

Code	Description	Ø	m/bob	€/m
ULTRAS216150R	Ultrasolar 2 **DN16** SP10 150 m. Red	16	150	**63,674**
ULTRAS216100R	Ultrasolar 2 **DN16** SP10 100 m. Red	16	100	**65,580**
ULTRAS216050R	Ultrasolar 2 **DN16** SP10 50 m. Red	16	50	**66,851**
ULTRAS220100R	Ultrasolar 2 **DN20** SP10 100 m. Red	20	100	**75,159**
ULTRAS220050R	Ultrasolar 2 **DN20** SP10 50 m. Red	20	50	**77,516**
ULTRAS225100R	Ultrasolar 2 **DN25** SP10 100 m. Red	25	100	**94,223**
ULTRAS225050R	Ultrasolar 2 **DN25** SP10 50 m. Red	25	50	**97,042**

ROLLS

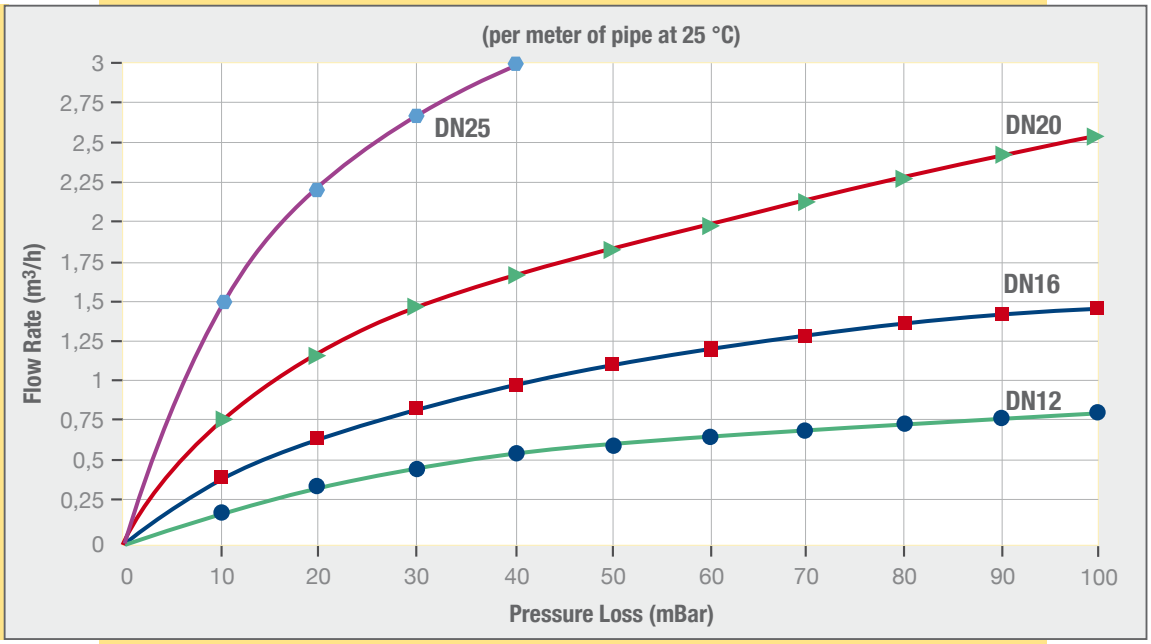
Code	Description	Ø	m/roll	€/m
ULTRAS216010R	Ultrasolar 2 **DN16** SP10 10 m. Red	16	10	**70,687**
ULTRAS216015R	Ultrasolar 2 **DN16** SP10 15 m. Red	16	15	**69,393**
ULTRAS216020R	Ultrasolar 2 **DN16** SP10 20 m. Red	16	20	**68,122**
ULTRAS216025R	Ultrasolar 2 **DN16** SP10 25 m. Red	16	25	**67,187**
ULTRAS220010R	Ultrasolar 2 **DN20** SP10 10 m. Red	20	10	**83,443**
ULTRAS220015R	Ultrasolar 2 **DN20** SP10 15 m. Red	20	15	**81,953**
ULTRAS220020R	Ultrasolar 2 **DN20** SP10 20 m. Red	20	20	**80,451**
ULTRAS220025R	Ultrasolar 2 **DN20** SP10 25 m. Red	20	25	**79,284**
ULTRAS225015R	Ultrasolar 2 **DN25** SP10 15 m. Red	25	15	**102,692**
ULTRAS225020R	Ultrasolar 2 **DN25** SP10 20 m. Red	25	20	**100,809**
ULTRAS225025R	Ultrasolar 2 **DN25** SP10 25 m. Red	25	25	**99,399**

ULTRASOLAR 2

FITTINGS KIT WITH 4 PIECES

Code	Description	€/Kit
RACDN16-1M	Fittings KIT DN 16X1" MALE	168,191
RACDN16-1/2M	Fittings KIT DN 16X1/2" MALE	134,720
RACDN16-3/4M	Fittings KIT DN 16X3/4" MALE	129,209
RACDN20-1M	Fittings KIT DN 20X1" MALE	160,982
RACDN20-3/4M	Fittings KIT DN 20X3/4" MALE	157,597
RACDN25-1M	Fittings KIT DN 25X1" MALE	194,454
RACDN25-11/4M	Fittings KIT DN 25X1-1/4" MALE	178,775
RACDN16-15R	Fittings KIT DN 16X15 COPPER	143,189
RACDN16-2218R	Fittings KIT DN 16X22/18 COPPER	149,971
RACDN20-2218R	Fittings KIT DN 20X22/18 COPPER	172,848
RACDN25-2218R	Fittings KIT DN 25X22/18 COPPER	269,012
RACDN16-16	Fittings KIT DN 16 X DN16	200,381
RACDN20-20	Fittings KIT DN 20 X DN20	233,009
RACDN25-25	Fittings KIT DN 25 X DN25	330,872
RACDN16-1F	Fittings KIT DN 16X1" FEMALE	183,859
RACDN16-1/2F	Fittings KIT DN 16X1/2" FEMALE	120,739
RACDN16-3/4F	Fittings KIT DN 16X3/4" FEMALE	135,991
RACDN20-1F	Fittings KIT DN 20X1" FEMALE	172,421
RACDN20-3/4F	Fittings KIT DN 20X3/4" FEMALE	134,720
RACDN25-1F	Fittings KIT DN 25X1" FEMALE	260,970
RACDN16-22C	Fittings KIT DN 16X22 COPPER ELBOW	316,037
RACDN16-3/4C	Fittings KIT DN 16X3/4" FEMALE ELBOW	251,646
RACDN16-18	Fittings KIT DN 16 X 18 COPPER	251,646
RACDN16-22	Fittings KIT DN 16 X 22 COPPER	266,897
RACDN20-18	Fittings KIT DN 20 X 18 COPPER	282,149
RACDN20-22	Fittings KIT DN 20 X 22 COPPER	288,076
RACDN25-18	Fittings KIT DN 25 X 18 COPPER	308,838
RACDN25-22	Fittings KIT DN 25 X 22 COPPER	315,193
RACTEE16-22R	Fittings KIT TEE 16X22 COPPER	364,333

Table of pressure losses of corrugated stainless steel AISI 316 L pipes.



ULTRASOLAR 2

EVOCELL &MOBIUS

ACOUSTIC

RANGE OF ACOUSTIC INSULATION PRODUCTS

EVOSOUND HD-RUB

Compound of 2 mm elastomeric high-density barrier coupled with a 10 mm rubber elastomeric foamed sheet (FEF). Coupling available also on both sides with sheets of different thicknesses.

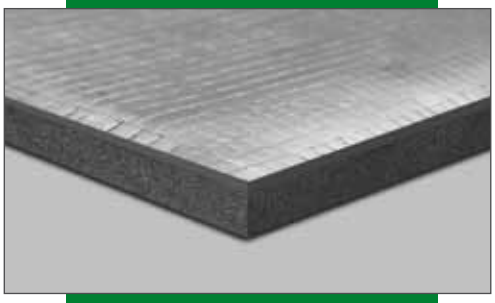
Code	Description	Dim.	€/m2
EVOSHDRUBC112	EVOSOUND HD RUB C1-12 1X2	1x2	**34,777**

Self-adhesive version available foam sie only - add €2,30 to net m2 price.

Packaging dimensions: 103 x 20 x 20 cm = (volume = 0.04 m^3)

Different thicknesses available on request.
Available in self-adhesive version.

EVOSOUND HD-RUB/HF



Halogen-free compound of 2 mm elastomeric high-density barrier coupled with a 10 mm rubber elastomeric foamed sheet (FEF) and multi-layered aluminium covering. Available in different thicknesses.

Code	Description	Dim.	€/m2
EVOSHDRUBHF12	EVOSOUND HD RUB HF-12 1X2	1x2	**62,200**

Self-adhesive version available foam side only - add €2,30 to net m2 price.

Packaging dimensions: 103 x 20 x 20 cm = (volume = 0.04 m^3).

Different thicknesses available on request.
Available in self-adhesive version.

EVOSOUND HD

Soundproofing material made of polymeric compound with mineral fillers.

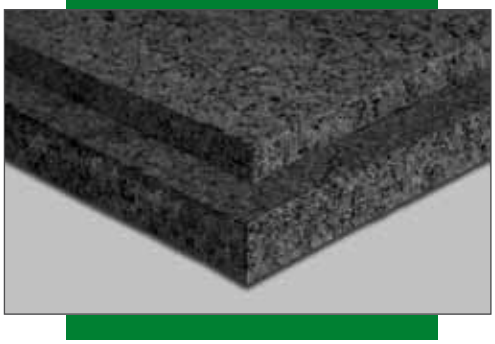
Code		Description	Dim.	€/m2
EVOSHD2KG/M2	1 mm	EVOSOUND HD 2KG/M2 (massa)	1x2	**8,377**
EVOSHD4KG/M2	2 mm	EVOSOUND HD 4KG/M2 (massa)	1x2	**16,754**
EVOSHD6KG/M2	3 mm	EVOSOUND HD 6KG/M2 (massa)	1x2	**25,131**
EVOSHD8KG/M2	4 mm	EVOSOUND HD 8KG/M2 (massa)	1x2	**33,508**
EVOSHD10KG/M2	5 mm	EVOSOUND HD 10KG/M2 (massa)	1x2	**41.885**

Rolled up sheets.

Packaging dimensions: 103 x 20 x 20 cm = (volume = 0.04 m^3).

Different thicknesses in the range from 1 to 5 mm available on request.

EVOSOUND OC

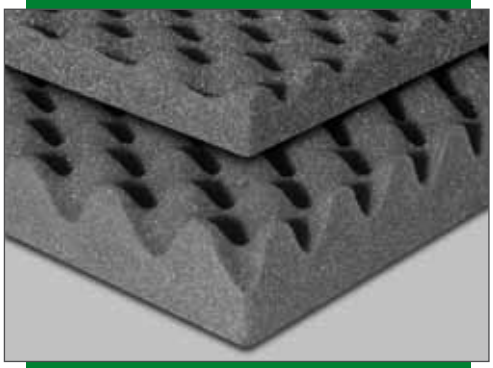


Granulated Flexible Elastomeric Foam (FEF) held together by a polyurethane resin binder.

Code		Description	Dim.	€/m2
EVOC 1600C-10	10 mm	AGGLOMERATO ACUSTICO 2X1 160 OC 10mm	1x2	16,923
EVOC 1600C-20	20 mm	AGGLOMERATO ACUSTICO 2X1 160 OC 20mm	1x2	33,846
EVOC 1600C-25	25 mm	AGGLOMERATO ACUSTICO 2X1 160 OC 25mm	1x2	43,365
EVOC 1600C-30	30 mm	AGGLOMERATO ACUSTICO 2X1 160 OC 30mm	1x2	50,769
EVOC 1600C-40	40 mm	AGGLOMERATO ACUSTICO 2X1 160 OC 40mm	1x2	67,692
EVOC 2400C-10	10 mm	AGGLOMERATO ACUSTICO 2X1 240 OC 10mm	1x2	29,615
EVOC 2400C-20	20 mm	AGGLOMERATO ACUSTICO 2X1 240 OC 20mm	1x2	57,115
EVOC 2400C-25	25 mm	AGGLOMERATO ACUSTICO 2X1 240 OC 25mm	1x2	71,923
EVOC 2400C-30	30 mm	AGGLOMERATO ACUSTICO 2X1 240 OC 30mm	1x2	88,846
EVOC 2400C-40	40 mm	AGGLOMERATO ACUSTICO 2X1 240 OC 40mm	1x2	112,115

The sheets are supplied on 1 x 2 m pallets..
Different thicknesses available on request.

EVOSOUND SILENT PLUS BU



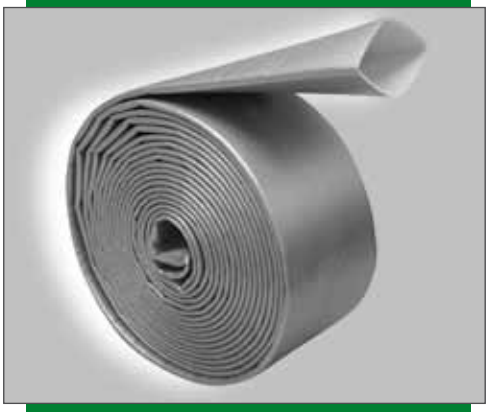
Range of products produced in flexible polyurethane foamed sheets in self-adhesive version with waved surface.

Code	Description	Dim.	€/m2
PUSILBU15X15	SILENT PLUS BU POLIUR.AD.15X15 (self-adhesive)	1x1,6	25,230
PUSILBU20X30	SILENT PLUS BU POLIUR.AD.20X30 (self-adhesive)	1x1,6	34,620

(*) Packed on pallet 1000 x 1600 x 1650 mm.
1 pallet = 64 flat sheets - m2 102
(**) Packed on pallet 1000 x 1600 x 1650 mm.
1 pallet = 40 flat sheets - m2 64

Different thicknesses available on request.

EVOSOUND NORUMOR



Acoustic insulation in rolls, length 15 m, thickness 5 mm.

Code	Description	m/box	€/m
PE NORUMOR 40	GUAINA POLIETILENE DA 40 SP 5	150	1,821
PE NORUMOR 50	GUAINA POLIETILENE DA 50 SP 5	135	1,886
PE NORUMOR 63	GUAINA POLIETILENE DA 63 SP 5	105	2,556
PE NORUMOR 75	GUAINA POLIETILENE DA 75 SP 5	90	2,893
PE NORUMOR 80	GUAINA POLIETILENE DA 80 SP 5	90	3,037
PE NORUMOR 90	GUAINA POLIETILENE DA 90 SP 5	75	3,161
PE NORUMOR 100	GUAINA POLIETILENE DA 100 SP 5	75	3,274
PE NORUMOR 110	GUAINA POLIETILENE DA 110 SP 5	75	3,427
PE NORUMOR 125	GUAINA POLIETILENE DA 125 SP 5	60	3,900

EVOSOUND HD-RUB

A range of acoustic-insulation rolled sheets produced by the coupling of high-density elastomeric and rubber foamed material (FEF). Available in different thicknesses, they are suitable for solving problems of acoustic insulation in building and industrial applications.

EVOSOUND HD-RUB

TECHNICAL SPECIFICATIONS

MATERIAL	High-density soundproofing barrier layer coupled with a flexible elastomeric foam sheet (FEF).
PRODUCT RANGE	Sheets in rolls with dimensions of 1 x 2 m (see the specific composition).
PRODUCT APPLICATION	Acoustic insulation of walls, floors and ceilings; enclosures for motors and air-conditioning equipment; acoustic insulation of water pipes, drains and heating & plumbing services in commercial, industrial and domestic applications.
SPECIFIC COMPOSITION	Compound composed of 2 mm of elastomeric high-density barrier covered on one or both sides by a rubber elastomeric foamed sheet made of FEF. Available in different thicknesses.

Technical Information	Reference data	Test Standards
SERVICE TEMPERATURES	from -45 °C to +110 °C	
WEIGHT	Approx. 4 kg/m^2	ASTM D 1662
MEASUREMENT OF NOISE FROM WASTE WATER INSTALLATIONS REDUCTION OF AIR-BORNE SOUND TRANSMISSION STRUCTURE-BORNE SOUND LEVEL	Flow rate 0,5l/s 1l/s 2l/s 4l/s dB (A) 12 12 10,5 10,5 Flow rate 0,5l/s 1l/s 2l/s 4l/s dB (A) 15,5 16,6 18,4 19,6	UNI EN 14366
INDICE DEL POTERE FONOISOLANTE R_W	27 dB (-1; -4)	EN ISO 140-3 - UNI EN ISO 717-1
HARDNESS*	80 ± 10 Shore A	ASTM D 2240 / UNI EN ISO 868 / DIN 53505
TENSILE STRENGTH*	> 1 N/mm^2	ASTM D 412 / DIN 53504 / UNI 6065
ELONGATION AT BREAK*	> 20 %	ASTM D 412 / DIN 53504 / UNI 6065
FIRE PERFORMANCE EUROPEAN STANDARD - EUROCLASS	D-s2,d0	EN 13501 - 1
ANTIMICROBIAL BEHAVIOUR	EXCELLENT	–

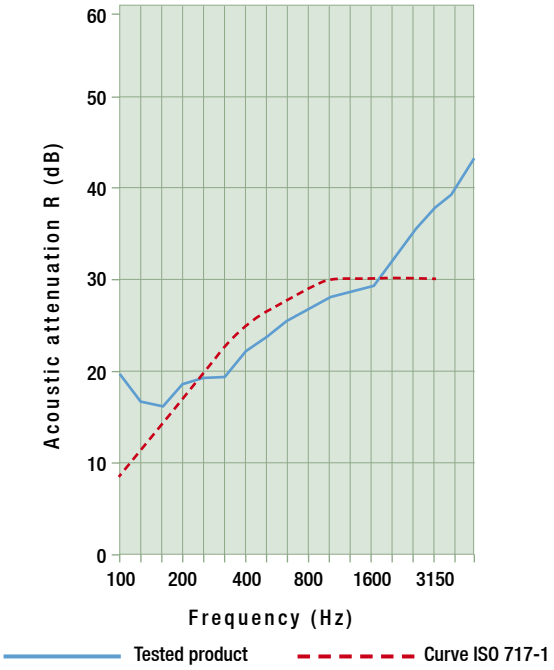
*Data refer exclusively to the 2 mm high density layer.

SOUND REDUCTION INDEX

(Ref. European Standard UNI EN ISO 140-3 and 717-1)

FREQ. Hz	R dB
100	20,4
125	15,8
160	14,9
200	17,4
250	18,5
315	18,7
400	21,3
500	21,9
630	23,9
800	25,3
1000	26,7
1250	28,1
1600	28,7
2000	29,4
2500	31,0
3150	35,2
4000	38,6
5000	44,0

$R_W (C;C_{tr})$ = 27 (-1;-4) dB



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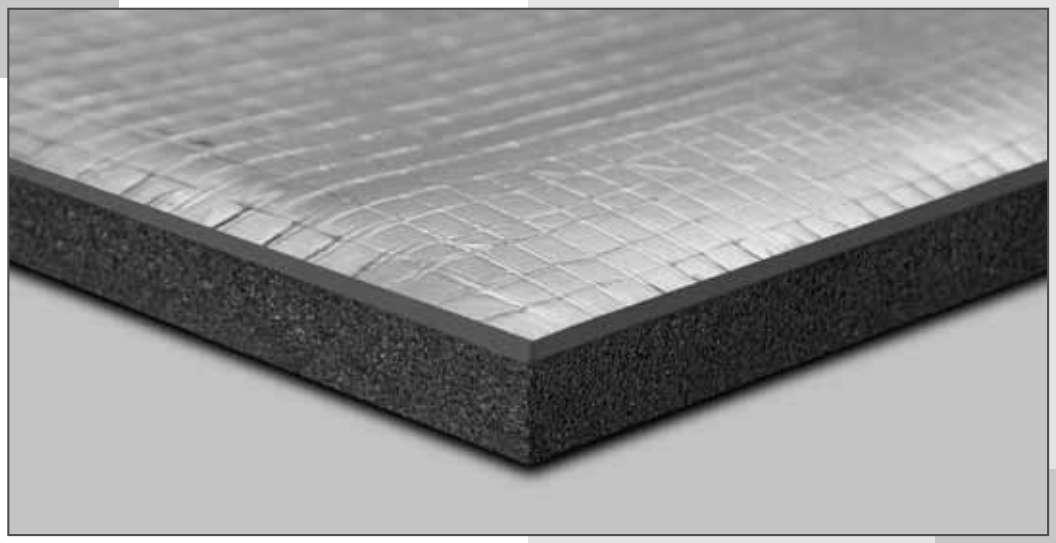
EVOSOUND HD-RUB/HF



A range of multi-layered acoustic-insulation rolled sheets produced by the coupling of elastomeric and rubber foamed material (FEF) Evocell&Mobius HF, a high density elastomeric material and an external aluminium covering. Available in different thicknesses, they are suitable for solving problems of acoustic insulation in building and industrial applications, where Halogen free materials are required to meet the high safety standards.

EVOCELL &MOBIUS

EVOSOUND HD-RUB/HF

TECHNICAL SPECIFICATIONS

MATERIAL	Halogen-free compound composed of a soundproofing barrier layer coupled with a flexible elastomeric foam sheet (FEF) and an external aluminium covering.
PRODUCT RANGE	Sheets in rolls with dimensions of 1 x 2 m (see the specific composition).
PRODUCT APPLICATION	Acoustic insulation of walls, floors and ceilings; enclosures for motors and air-conditioning equipment; acoustic insulation of water pipes, drains and heating & plumbing services in commercial, industrial and domestic applications, where high safety standards exist in case of fire.
SPECIFIC COMPOSITION	Compound composed of 2 mm of elastomeric high-density barrier coupled with 10 mm rubber elastomeric foamed sheet made of FEF and aluminium covering. Available in different thicknesses.

Technical Information	Reference data	Test Standards
SERVICE TEMPERATURES	from -45 °C to +130 °C	
WEIGHT	Approx. 4 kg/m^2	ASTM D 1662
MEASUREMENT OF NOISE FROM WASTE WATER INSTALLATIONS *REDUCTION OF AIR-BORNE SOUND TRANSMISSION* *STRUCTURE-BORNE SOUND LEVEL*	Flow rate 0,5l/s 1l/s 2l/s 4l/s dB (A) 12 12 10,5 10,5 Flow rate 0,5l/s 1l/s 2l/s 4l/s dB (A) 15,5 16,6 18,4 19,6	UNI EN 14366
SOUND REDUCTION INDEX R_W	27 dB (-1; -4)	EN ISO 140-3 - UNI EN ISO 717-1
HARDNESS*	80 ± 10 Shore A	ASTM D 2240 / UNI EN ISO 868 / DIN 53505
TENSILE STRENGTH*	> 1 N/mm^2	ASTM D 412 / DIN 53504 / UNI 6065
ELONGATION AT BREAK*	> 20 %	ASTM D 412 / DIN 53504 / UNI 6065
FIRE PERFORMANCE EUROPEAN STANDARD - EUROCLASS	C-s2,d0	EN 13501 - 1
ANTIMICROBIAL BEHAVIOUR	EXCELLENT	–

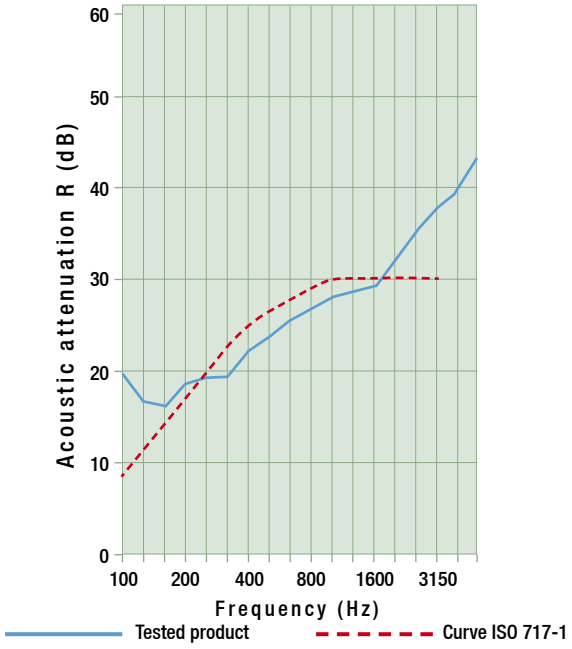
*Data refer exclusively to the 2 mm high density layer.

SOUND REDUCTION INDEX

(Ref. European Standard UNI EN ISO 140-3 and 717-1)

FREQ. Hz	R dB
100	20,4
125	15,8
160	14,9
200	17,4
250	18,5
315	18,7
400	21,3
500	21,9
630	23,9
800	25,3
1000	26,7
1250	28,1
1600	28,7
2000	29,4
2500	31,0
3150	35,2
4000	38,6
5000	44,0

R_W ($C;C_{tr}$) = 27 (-1;-4) dB



Tutte le normative citate nel presente documento si intendono aggiornate all'ultima versione rilasciata.
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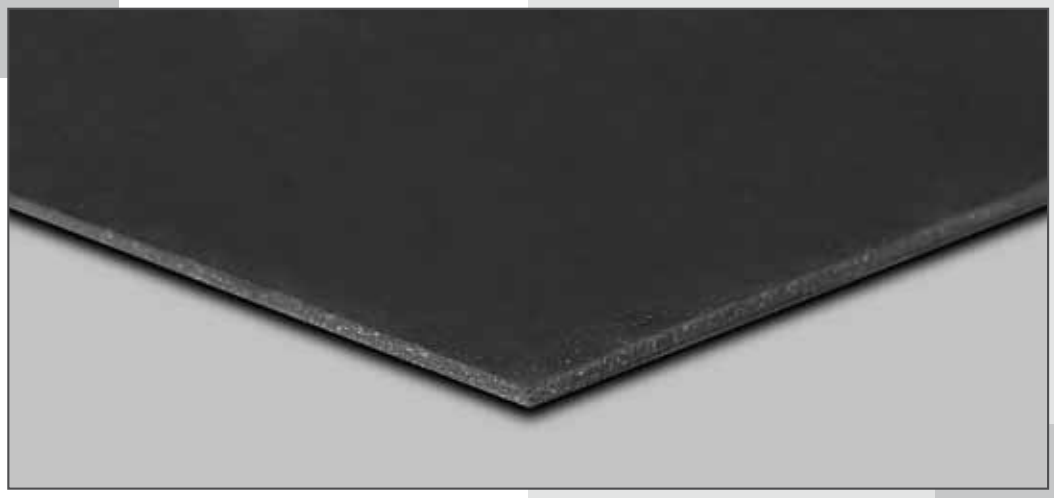
EVOSOUND HD



A range of sound-proofing high density polymers compound sheets with high performance in noise reduction, especially at low frequencies. An ideal solution for industrial and domestic applications.

EVOCELL &MOBIUS

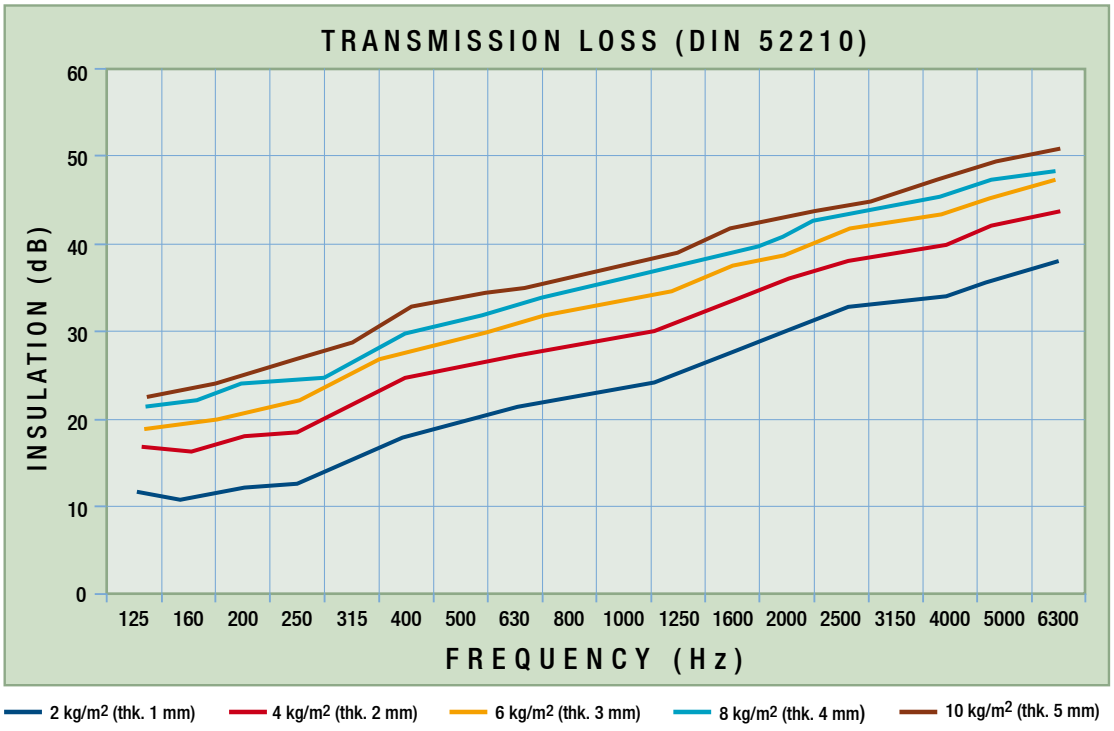
EVOSOUND HD

TECHNICAL SPECIFICATIONS

MATERIAL	A soundproofing material made of a polymeric compound and high density mineral fillers. The product is free of lead, unrefined aromatic oils and bitumen, and does not contain substances which are hazardous to human health.
PRODUCT RANGE	Available in sheets and rolls in a range of thicknesses from 1 mm to 5 mm and in widths up to 1200 mm.
PRODUCT APPLICATION	A flexible high performance noise barrier useful for reducing airborne sound transmission and as a component of an acoustic system with good low frequency sound barrier characteristics.
SPECIFIC COMPOSITION	Compound composed of a 2 mm elastomeric high-density barrier. Available in different thicknesses.

Technical Information	Reference data	Test Standards
SERVICE TEMPERATURES	-30 °C / +110 °C	
WEIGHT	1,95 ± 0,1 g/cm^3	EN ISO 1183-1 e 2 - EN ISO 1183-1 and 2
HARDNESS*	80 ± 10 Shore A	EN ISO 868
TENSILE STRENGTH*	> 1 N/mm^2	DIN 53504 / UNI 6065
ELONGATION AT BREAK*	> 20 %	DIN 53504 / UNI 6065
FIRE PERFORMANCE FLAME PROPAGATION	< 100 mm/min	ISO 3795 / UL 94

*Data refer exclusively to the 2 mm high density layer.



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EVOCELL &MOBIUS

EVOSOUND OC

A range of granulated FEF material in a resin binder supplied in sheet form, for use as a soundproofing and for impact sound insulation in sub-floor applications. Also used as a system component for thermal and acoustic insulation in industrial applications.

EVOCELL &MOBIUS

EVOSOUND OC

TECHNICAL SPECIFICATIONS

MATERIAL	Granulated Flexible Elastomeric Foam (FEF) held together by a polyurethane resin binder.
PRODUCT RANGE	Sheets available in a range of thicknesses from 10 to 40 mm. Available at density of 160 kg/m3 or 240 kg/m^3 (tolerance -20 +120 kg/m^3). Different thicknesses are available on request.
PRODUCT APPLICATION	Acoustic absorption.
STORAGE CONDITIONS/ SHELF LIFE	Store the material in a dry and clean environment at a temperature between 0 °C and 35 °C and a RH between 50% and 70%. Do not expose the material to heat or direct sunlight before installing.

Technical Information	Reference data	Test Standards
SERVICE TEMPERATURES	-45 °C / +110 °C	
FIRE PERFORMANCE EUROPEAN STANDARD	C-s3,d0	EN 13501-1
ACOUSTIC ABSORPTION (α)	Thk. 25 mm, Δ 240 Kg/m^3	
250 Hz.	0,26	
500 Hz.	0,70	
1000 Hz.	0,90	UNI EN ISO 354
2000 Hz.	0,85	
4000 Hz.	0,85	
5000 Hz.	0,85	

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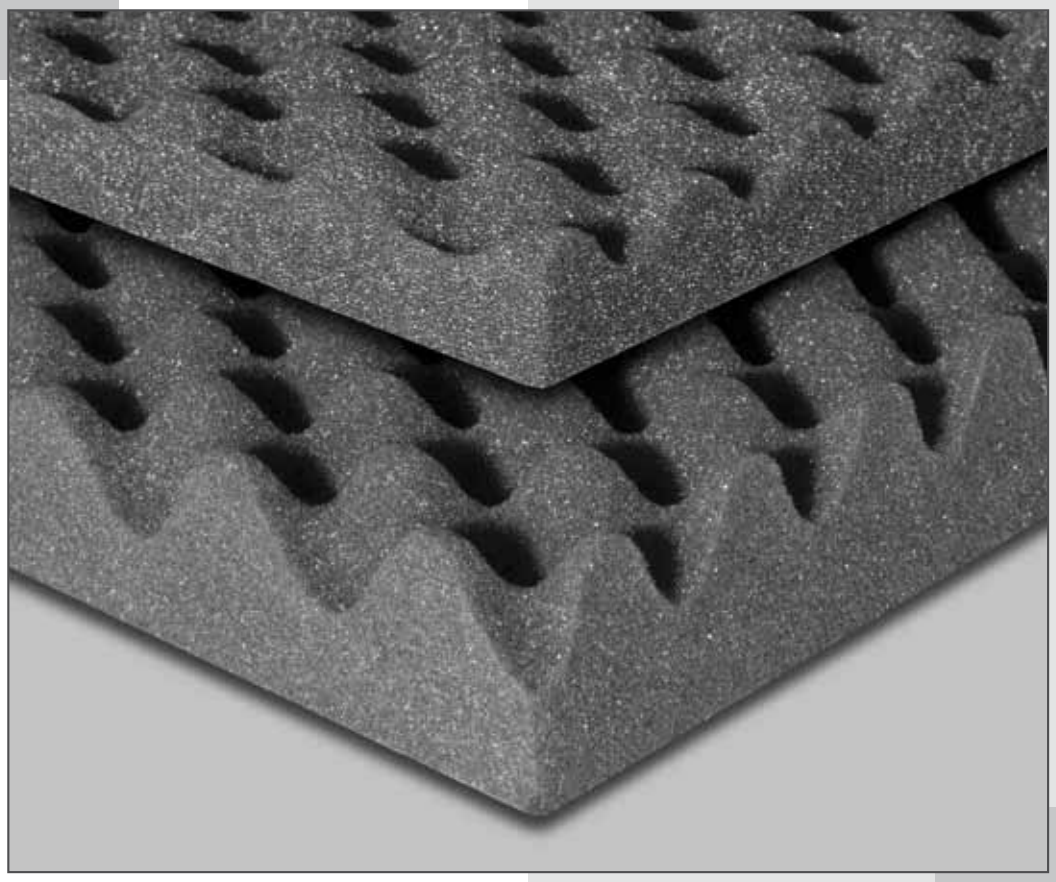
EVOSOUND SILENT PLUS BU



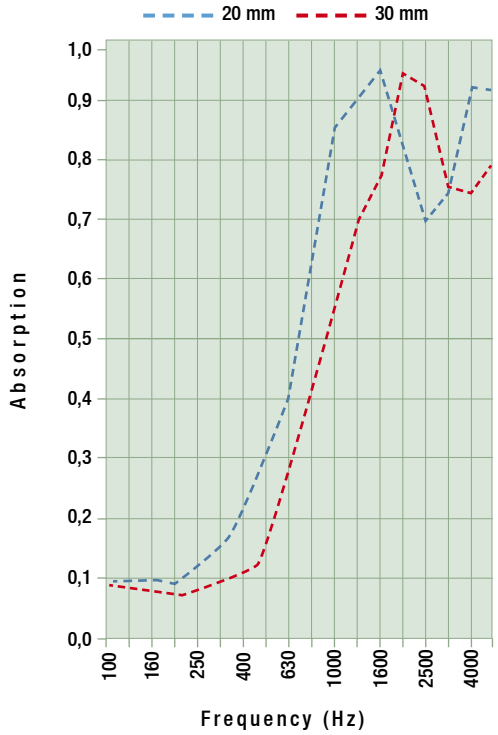
Evocell&Mobius SILENT PLUS BU is a range of products produced in flexible polyurethane foam in self-adhesive version with a waved surface and mainly used to increase sound absorption on the various structural components in industrial and domestic applications.

EVOSOUND SILENT PLUS BU

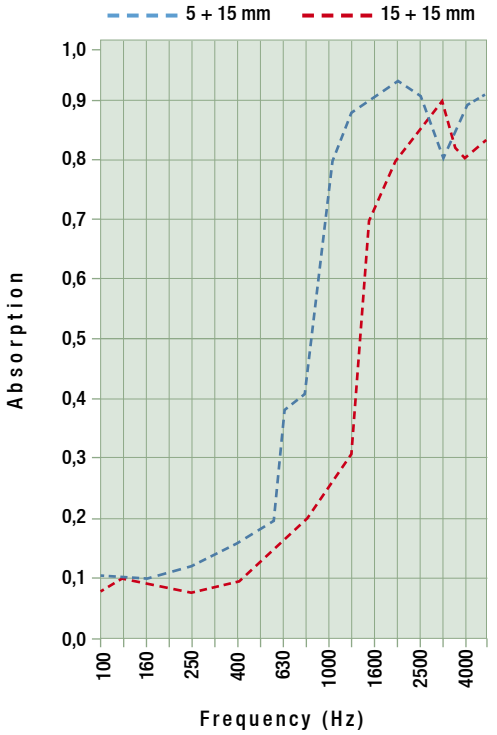
TECHNICAL SPECIFICATIONS

MATERIAL	Flexible polyurethane foam with with waved surface, standard grey anthracite in colour.
PRODUCT APPLICATION	Thermal and acoustic insulation.

Characteristics	Reference data	Test Standards
SERVICE TEMPERATURES	from -40 °C to + 70 °C	
DENSITY	25 Kg/m^3	ISO 845
TENSILE STRENGTH	130 kPa	ISO 1798
BREAKING ELONGATION	170 %	ISO 1798
COMPRESSION RESISTANCE	4 ± 15% kPa	ISO 3386/1
COMPRESSION LOAD		ISO 1856 - A
50%, 22 H, 70 °C	12 %	
DIMENSIONAL STABILITY	100 °C	ISO 2796
FIRE REACTION	CONFORMS	MVSS302



EVOSOUND SILENT PLUS BU density 30 kg/m^3 smooth
Acoustic absorption coefficient on standing wave tubes



EVOSOUND SILENT PLUS BU density 30 kg/m^3
Acoustic absorption coefficient on standing wave tubes

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EVOSOUND NORUMOR

This is a flexible polyethylene insulating sheath with a scratch resistant protective covering. It is the most economical and practical solution for reducing audible noise from water pipes and drains.

EVOCELL &MOBIUS

EVOSOUND NORUMOR

TECHNICAL SPECIFICATIONS

MATERIAL	Flexible polyethylene foam (PEF) with scratch resistant protective coating.
PRODUCT RANGE	Tubes in rolls with diameters from 40 to 125 mm and a thickness of 5 mm.
PRODUCT APPLICATION	Acoustic insulation of drainage systems.

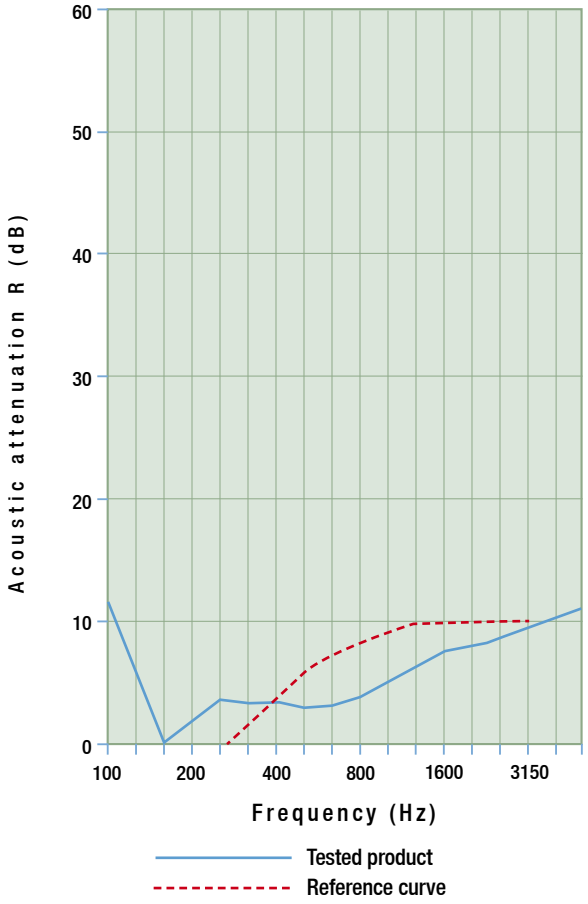
ACOUSTIC INSULATION TEST

(Ref. European Standards UNI EN ISO 10140-1-2 - UNI EN ISO 717 -)

Sample area	S = 1,50 m^2
Volume of the receiving room	V = 69,6 m^3
Volume of the transmitting room	86 m^3

FREQ. Hz	R dB	U dB
100	12,1	1,6
125	3,9	1,4
160	0,4	1,5
200	2,5	1,4
250	4,0	1,0
315	2,9	1,0
400	3,2	0,8
500	2,6	0,7
630	2,8	0,7
800	3,7	0,7
1000	4,5	0,6
1250	5,4	0,6
1600	6,4	0,6
2000	7,2	0,6
2500	8,0	0,6
3150	9,4	0,6
4000	10,5	0,6
5000	11,7	0,6

R_W ($C;C_{tr}$) = 6 (-1;-3) dB
K=2.00 – 95%



TEST RESULTS WITH NORUMOR THICKNESS 5 mm

Sound level of drainage pipe	70 dB (A) -
Noise reduction with NORUMOR	6 dB (A) -
Noise reduction of the walling	32 dB (A) =
MEASURED AMBIENT NOISE LEVEL	32 dB (A)

NB: For drainage pipes, the current legislation imposes a limit of 35 dB as being the level of noise not to be exceeded in the environment.

IT-FLEX TUBE SUPPORTS

- ★ Closed-cell microcellular structure
- ★ Excellent insulation performance
- ★ High resistance to water vapour diffusion
- ★ High mechanical resistance
- ★ High compression resistance
- ★ Quick and esay to install
- ★ λ at 10 °C $\leq$ 0,036 W/m•K

IT-FLEX TUBE SUPPORTS

Technical Data Sheet

Rev. 03/20

MATERIAL	Expanded polyurethane foam (PIR) coupled to flexible elastomeric foam (FEF) and external cover in PVC and/or PVC-ALU-UV resistant protective film.
PRODUCT SPECIFICATIONS	Composite thermal insulation to optimize connections between the support brackets and the insulated pipeworks.
PRODUCT RANGE	Tube supports with diameters from 18 to 170 mm, and thicknesses from 13 to 32 mm. Length 50 mm.
PRODUCT APPLICATION	Mechanical protection, condensation prevention and to safeguard the properties of the insulation material on pipworks in general.
MAIN CHARACTERISTICS	The PIR foam uses CO_2 as the expanding agent.

TECHNICAL CHARACTERISTICS OF THE POLYURETHANE INSULATION

Technical information	Reference data	Test standards
DENSITY	approx. 60 - 80 kg m^3*	ISO 845
SERVICE TEMPERATURE Maximum temperature of transported fluids Minimum temperature of transported fluids	 + 120 °C - 180 °C	
THERMAL CONDUCTIVITY λ	At mean temp. of 10 °C 0,036 W/m•K	ASTM C 518
REACTION TO FIRE	B2	DIN 4102
WATER VAPOUR TRANSMISSION	25 (+/- 10) / 30 (+/- 10) g/m2 - 24 h → 80 kg m^3 / 60 kg m^3	ISO 1663
WATER ABSORPTION	5%	ISO 2896
% OF CLOSSED CELLS approx. 60 - 80 kg m^3*	92%	ASTM D 2856
COMPRESSION RESISTANCE — Parallel Perpendicular	kPa 670 (+/- 80) / 440 (+/- 120) → 60 kg m^3; 970 (+/- 120) / 670 (+/- 150) → 80 kg m^3	ISO 844
TENSILE STRENGTH — Parallel Perpendicular	kPa 860 (+/- 90) / 710 (+/- 130) → 60 kg m^3; 1280 (+/- 160) / 1000 (+/- 220) → 80 kg m^3	ASTM D 1623
SHEAR STRENGTH	kPa 350 (+/- 60) → 60 kg m^3 kPa 550 (+/- 80) → 80 kg m^3	ASTM C 273
DIMENSION STABILITY Length - Width - Thickness	at - 25 °C x 48 h +0,5% +0,5% at + 100 °C x 48 h +1,0% +1,0%	ISO 2796

*** NB: PIR density of 60 kg/m^3 for pipe supports up to a diameter of 35 mm.**
PIR density of 80 kg/m^3 for pipe supports with diameters from 42 mm to 219 mm.

For the elastomeric parts refer to the IT-FLEX C1 technical characteristics.

TECHNICAL DATA OF EXTERNAL COATING :

TYPE	FILM IN PVC SCRATCH PROOF / ANTI UV	COMPOSITE PVC+ALU+UV RESISTANT PROTECTION COVERING	
COLOUR	BLACK RAL 9005	ALUMINIUM	
RESISTANCE TO VAPOUR WATER DIFFUSION μ	≥ 15.000	≥ 15.000	EN ISO 12086
OZONE RESISTANCE	EXCELLENT	EXCELLENT	ISO 7326
UV RESISTANCE	EXCELLENT	EXCELLENT	UNI ISO 4892 - 2

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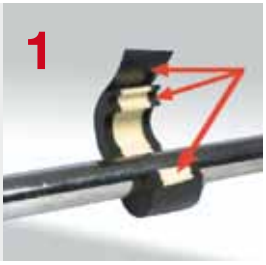
Mounting instructions:

1 - 1 - Mount the support onto the piping and glue the surfaces with the AB 850 adhesive (⟶)

2 - Close and seal the support.



IT-FLEX TUBES SUPPORTS WITH EXTERNAL BLACK PVC COATING

Thickness 13 mm			Thickness 19 mm			Thickness 25 mm			Thickness 32 mm		
ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc
18	EV3SUP13x018	**8,720**	18	EV3SUP19x018	**11,120**	18	EV3SUP25x018	**12,276**	18	EV3SUP32x018	**19,154**
22	EV3SUP13x022	**9,097**	22	EV3SUP19x022	**12,276**	22	EV3SUP25x022	**13,782**	22	EV3SUP32x022	**19,219**
28	EV3SUP13x028	**10,823**	28	EV3SUP19x028	**14,028**	28	EV3SUP25x028	**15,974**	28	EV3SUP32x028	**23,684**
35	EV3SUP13x035	**12,731**	35	EV3SUP19x035	**15,961**	35	EV3SUP25x035	**18,569**	35	EV3SUP32x035	**28,706**
42	EV3SUP13x042	**14,016**	42	EV3SUP19x042	**18,558**	42	EV3SUP25x042	**18,661**	42	EV3SUP32x042	**28,797**
48	EV3SUP13x048	**14,132**	48	EV3SUP19x048	**18,569**	48	EV3SUP25x048	**22,424**	48	EV3SUP32x048	**28,913**
54	EV3SUP13x054	**15,974**	54	EV3SUP19x054	**22,412**	54	EV3SUP25x054	**22,464**	54	EV3SUP32x054	**38,349**
60	EV3SUP13x060	**18,558**	60	EV3SUP19x060	**22,503**	60	EV3SUP25x060	**28,213**	60	EV3SUP32x060	**38,373**
64	EV3SUP13x064	**18,569**	64	EV3SUP19x064	**22,517**	64	EV3SUP25x064	**28,251**	64	EV3SUP32x064	**38,478**
67	EV3SUP13x067	**18,661**	67	EV3SUP19x067	**28,200**	67	EV3SUP25x067	**28,291**	67	EV3SUP32x067	**38,568**
70	EV3SUP13x070	**23,437**	70	EV3SUP19x070	**29,316**	70	EV3SUP25x070	**29,342**	70	EV3SUP32x070	**38,568**
76	EV3SUP13x076	**23,450**	76	EV3SUP19x076	**29,342**	76	EV3SUP25x076	**38,842**	76	EV3SUP32x076	**56,503**
80	EV3SUP13x080	**23,542**	80	EV3SUP19x080	**29,342**	80	EV3SUP25x080	**38,958**	80	EV3SUP32x080	**56,516**
89	EV3SUP13x089	**29,237**	89	EV3SUP19x089	**29,419**	89	EV3SUP25x089	**39,049**	89	EV3SUP32x089	**56,582**
102	EV3SUP13x102	**39,127**	102	EV3SUP19x102	**39,231**	102	EV3SUP25x102	**39,347**	102	EV3SUP32x102	**57,061**
108	EV3SUP13x108	**39,217**	108	EV3SUP19x108	**39,412**	108	EV3SUP25x108	**57,061**	108	EV3SUP32x108	**57,113**
114	EV3SUP13x114	**39,231**	114	EV3SUP19x114	**39,503**	114	EV3SUP25x114	**57,295**	114	EV3SUP32x114	**57,153**
125	EV3SUP13x125	**51,637**	125	EV3SUP19x125	**71,466**	125	EV3SUP25x125	**79,304**	125	EV3SUP32x125	**91,452**
133	EV3SUP13x133	**64,355**	133	EV3SUP19x133	**73,023**	133	EV3SUP25x133	**90,271**	133	EV3SUP32x133	**94,241**
140	EV3SUP13x140	**66,704**	140	EV3SUP19x140	**78,514**	140	EV3SUP25x140	**94,241**	140	EV3SUP32x140	**100,859**
160	EV3SUP13x160	**78,526**	160	EV3SUP19x160	**82,419**	160	EV3SUP25x160	**102,068**	160	EV3SUP32x160	**109,906**

IT-FLEX TUBE SUPPORTS WITH EXTERNAL PROTECIVE COATING IN PVC/ALU/UV RESISTANT FILM

Thickness 13 mm			Thickness 19 mm			Thickness 25 mm			Thickness 32 mm		
ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc	ø piping (mm)	Code	€/pc
18	EV3SAU13x018	**9,110**	18	EV3SAU19x018	**11,615**	18	EV3SAU25x018	**12,834**	18	EV3SAU32x018	**20,024**
22	EV3SAU13x022	**9,512**	22	EV3SAU19x022	**12,834**	22	EV3SAU25x022	**14,405**	22	EV3SAU32x022	**20,127**
28	EV3SAU13x028	**11,302**	28	EV3SAU19x028	**14,677**	28	EV3SAU25x028	**16,701**	28	EV3SAU32x028	**24,748**
35	EV3SAU13x035	**13,314**	35	EV3SAU19x035	**16,676**	35	EV3SAU25x035	**19,413**	35	EV3SAU32x035	**30,003**
42	EV3SAU13x042	**14,664**	42	EV3SAU19x042	**19,401**	42	EV3SAU25x042	**19,504**	42	EV3SAU32x042	**30,107**
48	EV3SAU13x048	**14,781**	48	EV3SAU19x048	**19,413**	48	EV3SAU25x048	**23,437**	48	EV3SAU32x048	**30,224**
54	EV3SAU13x054	**16,701**	54	EV3SAU19x054	**23,425**	54	EV3SAU25x054	**23,501**	54	EV3SAU32x054	**40,087**
60	EV3SAU13x060	**19,413**	60	EV3SAU19x060	**23,528**	60	EV3SAU25x060	**29,484**	60	EV3SAU32x060	**40,126**
64	EV3SAU13x064	**19,491**	64	EV3SAU19x064	**23,542**	64	EV3SAU25x064	**29,536**	64	EV3SAU32x064	**40,230**
67	EV3SAU13x067	**19,556**	67	EV3SAU19x067	**29,460**	67	EV3SAU25x067	**29,576**	67	EV3SAU32x067	**42,116**
70	EV3SAU13x070	**24,515**	70	EV3SAU19x070	**30,652**	70	EV3SAU25x070	**30,666**	70	EV3SAU32x070	**44,001**
76	EV3SAU13x076	**24,553**	76	EV3SAU19x076	**30,666**	76	EV3SAU25x076	**40,619**	76	EV3SAU32x076	**59,072**
80	EV3SAU13x080	**24,605**	80	EV3SAU19x080	**30,692**	80	EV3SAU25x080	**40,723**	80	EV3SAU32x080	**59,099**
89	EV3SAU13x089	**30,562**	89	EV3SAU19x089	**30,769**	89	EV3SAU25x089	**40,814**	89	EV3SAU32x089	**59,178**
102	EV3SAU13x102	**40,917**	102	EV3SAU19x102	**41,008**	102	EV3SAU25x102	**41,125**	102	EV3SAU32x102	**59,657**
108	EV3SAU13x108	**40,996**	108	EV3SAU19x108	**41,215**	108	EV3SAU25x108	**59,657**	108	EV3SAU32x108	**59,709**
114	EV3SAU13x114	**41,046**	114	EV3SAU19x114	**41,281**	114	EV3SAU25x114	**59,903**	114	EV3SAU32x114	**59,761**
125	EV3SAU13x125	**53,973**	125	EV3SAU19x125	**74,711**	125	EV3SAU25x125	**82,912**	125	EV3SAU32x125	**95,617**
133	EV3SAU13x133	**67,274**	133	EV3SAU19x133	**76,345**	133	EV3SAU25x133	**94,371**	133	EV3SAU32x133	**98,525**
140	EV3SAU13x140	**69,741**	140	EV3SAU19x140	**82,082**	140	EV3SAU25x140	**98,525**	140	EV3SAU32x140	**105,453**
160	EV3SAU13x160	**82,095**	160	EV3SAU19x160	**86,170**	160	EV3SAU25x160	**106,712**	160	EV3SAU32x160	**114,902**

NOTE: The metal collars are supplied on request.

IT-FLEX ACCESSORIES

- ★ Adhesive elastomeric tapes
- ★ Self-adhesive insulation tapes in PE and PVC
- ★ Aluminium self-adhesive insulation tapes
- ★ Aluminium endcappings
- ★ Accessories for installing foils and PVC T fittings
- ★ Glues
- ★ Detergents
- ★ Elastomeric paints

CNX ADHESIVE

Coverage of adhesive by area	approx. 3 - 4	mq/kg
Coverage of adhesive on pipework	thickness mm	m/kg
	6	200
	9	130
	13	90
	19	40
	25	30
	32	20
Drying time before gluing	from 5/10 minutes at a room-temperature of 20 °C	

ALUMINIUM JOINTING TAPES

TECHNICAL DATA

Working temperature range	from - 40 °C to + 80 °C
Thickness	mm 0,030
Elongation at break	3%
Fire behaviour	Nonflammable (DIN 4102 Norm)
Storage conditions	at approx. 20/25 °C with relative air humidity max 65%

PVC JOINTING TAPES

TECHNICAL DATA

Fire behaviour	B1 (DIN 4102)
Thickness	mm 0,10
Tensile strength	MPa 15
Elongation at break	125%
Temperature limit	+ 80 °C
Storage conditions	at approx. 20/25 °C with relative air humidity max 65%

SELF-ADHESIVE ELASTOMERIC TAPES

Working temperature range from - 40 °C to + 86 °C

Dimensions: Thickness 3 mm. Width 50 mm. Length 10 m.

COLOURED ELASTOMERIC PAINTS

TECHNICAL DATA

Available colours	Grey - White Blue - Red on request
Density	1,25 - 1,35 Kg/dm^3 at 20 °C
Temperature range	from - 50 °C to + 120 °C
Application temperature	from 5 °C to + 30 °C
Drying time	1 - 2 hours
Coverage by area	5 mq/l
Packaging	3 l tins or 20 l tubs

Performance on insulating pipes m/l

Diameter mm	thickness 6 mm	thickness 9 mm	thickness 13 mm	thickness 19 mm	thickness 25 mm	thickness 32 mm
6	ml 71	ml 46				
8	ml 64	ml 43				
10	ml 58	ml 42	ml 35	ml 25		
12	ml 53	ml 36	ml 34	ml 24		
14	ml 49	ml 31	ml 34	ml 23		
16	ml 46	ml 29	ml 28	ml 22		
18	ml 43	ml 25	ml 26	ml 20	ml 15	ml 11
20	ml 41					
22	ml 38	ml 22	ml 23	ml 18	ml 14	ml 10
25	ml 35					
27	ml 33	ml 20	ml 20	ml 16	ml 13	ml 9
34	ml 28	ml 18	ml 16	ml 15	ml 12	ml 9
42	ml 23	ml 18	ml 16	ml 14	ml 11	ml 8
48		ml 16	ml 15	ml 13	ml 11	ml 8
54		ml 15	ml 14	ml 12	ml 10	ml 7
60		ml 14	ml 13	ml 11	ml 10	ml 7
70		ml 13	ml 11	ml 10	ml 9	ml 6
76		ml 12	ml 10	ml 9	ml 8	ml 6
89		ml 11	ml 9	ml 9	ml 8	ml 6
102		ml 10	ml 9	ml 8	ml 7	ml 5
108		ml 9	ml 8	ml 8	ml 7	ml 5
114		ml 8	ml 8	ml 7	ml 6	ml 5
127			ml 7	ml 7	ml 6	ml 5
134			ml 7	ml 6	ml 5	ml 4
140			ml 6	ml 5	ml 5	ml 4
160			ml 6	ml 5	ml 4	ml 5

NB: For greater protection it is advisable to apply 2 coats of paint.
The first hand should be diluted with approx. 10% of water.

ALUMINIUM ENDCAPPINGS

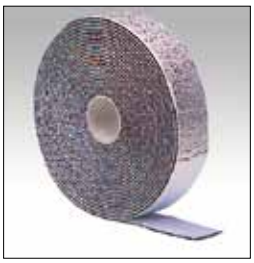
mm 18 for insulating pipes with a diameter between 24 and 34 mm

mm 23 for insulating pipes with a diameter between 43 and 49 mm

mm 28 for insulating pipes with a diameter between 61 and 90 mm

mm 38 for insulating pipes with a diameter between 102 and 115 mm

IT-FLEX - SELF-ADHESIVE ELASTOMERIC TAPES



Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRON3	10	50	24	**17,874**
EV8NASTRON315	15	50	12	**25,023**
EV8NASTRON100	10	100	12	**35,748**
EV8NASTRON3AT	10	50	24	**25,928**

IT-FLEX PE AL- SELF-ADHESIVE ELASTOMERIC TAPES

Thickness 1,5 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTROPEAL	25	50	12	**38,821**

IT-FLEX TRIPLEX - SELF-ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTROTRI	10	50	24	**20,451**

IT-FLEX UV PROTECTION - SELF-ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTROUV	10	50	24	**17,000**

IT-FLEX HI TECH - SELF-ADHESIVE ELASTOMERIC TAPES

Thickness 3 mm

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRON3HT	10	50	24	**28,812**

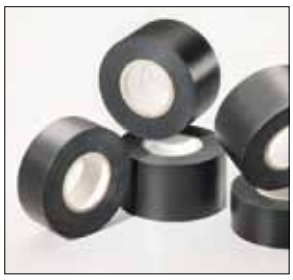
Packaging dimensions: 45 x 32 x 45 cm - Packaging volume = 0,06 m^3 (length 10)
Packaging dimensions: 56 x 31 x 29 cm - Packaging volume = 0,05 m^3 (length 15)

IT-FLEX COVER SELF-ADHESIVE TAPE

Thickness 80 µm

Code	Dimensions Width (mm) x Length (m)	Packaging content (pc/box)	Prezzo €/pc
EV8NASTCOVE25	25 x 50	48	**36,609**
EV8NASTCOVE50	50 x 50	24	**74,621**

Packaging dimensions: 44 x 44 x 31 cm - Packaging volume = 0,06 m3



IT-FLEX - PVC SELF-ADHESIVE JOINTING TAPES

Code	Colour	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRNCN25	Nero	25	25	96	**5,211**
EV8NASTRNCN38	Nero	25	38	60	**7,919**
EV8NASTRNCG25	Grigio	33	25	90	**10,568**
EV8NASTRNCG50	Grigio	33	50	18	**20,224**

IT-FLEX C1 R - WHITE PVC SELF-ADHESIVE JOINTING TAPES

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRNCB25	25	38	60	**9,070**

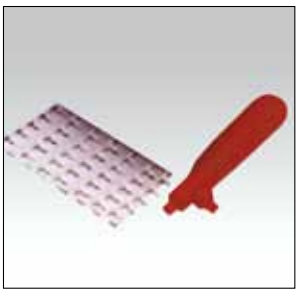
IT-FLEX - ALUMINIUM JOINTING TAPES

Code	Roll length (m)	Roll width (mm)	Packaging content (pc/box)	Price €/roll
EV8NASTRNCA25	50	25	Loose	**18,590**
EV8NASTRNCA50	50	50	Loose	**33,742**

IT-FLEX - ALUMINIUM ENDCAPPINGS

Code	ø Piping from mm - to mm	Roll length (mm)	Packaging content (pc/box)	Price €/pc
EV8TA18	22 - 34	10	5	**9,881**
EV8TA23	43 - 49	10	5	**10,265**
EV8TA28	61 - 90	10	5	**11,356**
EV8TA38	102 - 115	10	5	**14,549**

IT-FLEX - VARIOUS ACCESSORIES



Code	Description	Packaging content (pc)	Price €/pc
EV8PNT	Straight awl	1	**9,073**
EV8CHIODINI	Plastic tacks	1000	**13,497**

IT-FLEX - GLUES, DETERGENTS, PAINTS

Code	Description	Packaging content (pc)	Price €/pc
EV8AB850	850 g tin	12	**20,624**
EV8AB425	425 g tin	24	**12,916**
EV8AB425AT	425 g tin	24	**37,493**
EV8DETERGENTE	1 l can	12	**20,080**
EV8ACVEG-G	0,75 l can of grey elastomeric paint	loose	**49,154**
EV8ACVEG-B	0,75 l can of white elastomeric paint	loose	**49,154**
EV8AB425P	425 g tin with brush	12	**21,850**
EV8AB200P	200 g tin with brush	24	**11,134**

KIT OF THREE KNIVES IN PLASTIC TUBE

Composed of	Price €/conf.
No. 1 flat knive - handle - 90 mm. Length - 180 mm	117,00
No. 1 flat knive - handle - 170 mm. Length - 280 mm	
No. 1 flat knive - length 150 mm. Length - 300 mm	

COMPLETE BAG

Composed of	Price €/conf.
No. 1 flat knive - handle - 90 mm. Length - 180 mm	547,00
No. 1 flat knive - handle - 170 mm. Length - 280 mm	
No. 1 flat knive - length 150 mm. Length - 300 mm	
No. 1 meterstick	
No. 1 compass	
No. 1 10 mm brush	
No. 1 14 mm brush	
No. 1 pumice stone	
No. 1 stylus pen	
No. 1 copper pipe	

GLUE PUMP WITH 17 mm BRUSH

Description	Price €/pc
Glue pump with 17 mm brush	189,00

IT-FLEX
SPECIAL PROCESSED PARTS

- ★ Self-adhesive precut tubes with overlap
- ★ Self-adhesive precut tubes
- ★ Special pieces

On request, Evocell&Mobius S.r.l. is able to produce special custom made parts, seals, profiles etc., in the various insulation materials, based on customer's drawings, in a department fully equipped with die cutters, coupling and water jet cutting machines.

Labour costs only

INSULATION TUBES, 2 m IN LENGTH, WITH A SELF-ADHESIVE LONGITUDINAL STRIP AND RUBBER OVERLAP.

Thickness **6 mm**			Thickness **9 mm**			Thickness **13 mm**		
Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m
EVPRO2GD010	10	**2,072**	EVPRO2GF010	10	**2,101**			
EVPRO2GD012	12	**2,083**	EVPRO2GF012	12	**2,114**	EVPRO2GH012	12	**2,463**
EVPRO2GD015	15	**2,101**	EVPRO2GF015	15	**2,139**	EVPRO2GH015	15	**2,503**
EVPRO2GD018	18	**2,121**	EVPRO2GF018	18	**2,387**	EVPRO2GH018	18	**2,532**
EVPRO2GD020	20	**2,375**	EVPRO2GF020	20	**2,424**	EVPRO2GH020	20	**2,873**
EVPRO2GD022	22	**2,378**	EVPRO2GF022	22	**2,426**	EVPRO2GH022	22	**2,885**
EVPRO2GD025	25	**2,475**	EVPRO2GF025	25	**2,630**	EVPRO2GH025	25	**3,004**
EVPRO2GD028	28	**2,502**	EVPRO2GF028	28	**2,660**	EVPRO2GH028	28	**3,026**
EVPRO2GD030	30	**2,693**	EVPRO2GF030	30	**2,970**	EVPRO2GH030	30	**3,334**
			EVPRO2GF032	32	**3,034**	EVPRO2GH032	32	**3,442**
EVPRO2GD035	35	**3,037**	EVPRO2GF035	35	**3,106**	EVPRO2GH035	35	**3,443**
			EVPRO2GF038	38	**3,246**	EVPRO2GH038	38	**3,535**
						EVPRO2GH040	40	**3,840**
EVPRO2GD042	42	**3,135**	EVPRO2GF042	42	**3,286**	EVPRO2GH042	42	**3,841**
			EVPRO2GF045	45	**3,318**	EVPRO2GH045	45	**4,042**
			EVPRO2GF048	48	**3,377**	EVPRO2GH048	48	**4,202**
						EVPRO2GH050	50	**4,360**
			EVPRO2GF054	54	**3,583**	EVPRO2GH054	54	**4,517**
			EVPRO2GF057	57	**3,585**	EVPRO2GH057	57	**4,621**
			EVPRO2GF060	60	**3,586**	EVPRO2GH060	60	**4,622**
			EVPRO2GF064	64	**3,587**	EVPRO2GH064	64	**5,682**
			EVPRO2GF070	70	**3,671**	EVPRO2GH070	70	**6,469**
			EVPRO2GF076	76	**3,672**	EVPRO2GH076	76	**6,470**
			EVPRO2GF080	80	**3,747**	EVPRO2GH080	80	**6,900**
			EVPRO2GF089	89	**3,749**	EVPRO2GH089	89	**7,186**
			EVPRO2GF102	102	**4,161**	EVPRO2GH102	02	**7,689**
			EVPRO2GF108	108	**5,284**	EVPRO2GH108	108	**7,990**
			EVPRO2GF114	114	**5,600**	EVPRO2GH114	114	**8,013**
						EVPRO2GH125	125	**8,463**
						EVPRO2GH133	133	**9,143**
			EVPRO2GF140	140	**6,832**	EVPRO2GH140	140	**9,144**
						EVPRO2GH160	160	**9,145**

Labour costs only

INSULATION TUBES, 2 m IN LENGTH, WITH A SELF-ADHESIVE LONGITUDINAL STRIP AND RUBBER OVERLAP.

Thickness **19 mm**			Thickness **25 mm**			Thickness **32 mm**		
Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m
EVPRO2GM012	12	**4,194**						
EVPRO2GM015	15	**4,206**						
EVPRO2GM018	18	**4,260**	EVPRO2GP018	18	**4,627**	EVPRO2GT018	18	**6,376**
EVPRO2GM020	20	**4,564**						
EVPRO2GM022	22	**4,629**	EVPRO2GP022	22	**4,749**	EVPRO2GT022	22	**6,523**
EVPRO2GM025	25	**4,860**						
EVPRO2GM028	28	**4,875**	EVPRO2GP028	28	**4,911**	EVPRO2GT028	28	**6,893**
EVPRO2GM030	30	**4,881**						
EVPRO2GM032	32	**5,005**						
EVPRO2GM035	35	**5,014**	EVPRO2GP035	35	**5,496**	EVPRO2GT035	35	**7,540**
EVPRO2GM038	38	**5,119**						
EVPRO2GM040	40	**5,223**						
EVPRO2GM042	42	**5,477**	EVPRO2GP042	42	**6,072**	EVPRO2GT042	42	**8,010**
EVPRO2GM045	45	**5,611**						
EVPRO2GM048	48	**5,720**	EVPRO2GP048	48	**6,415**	EVPRO2GT048	48	**8,402**
EVPRO2GM050	50	**6,100**						
EVPRO2GM054	54	**6,259**	EVPRO2GP054	54	**6,770**	EVPRO2GT054	54	**8,673**
EVPRO2GM057	57	**6,378**						
EVPRO2GM060	60	**6,495**	EVPRO2GP060	60	**7,561**	EVPRO2GT060	60	**9,480**
EVPRO2GM064	64	**6,496**	EVPRO2GP064	64	**7,663**	EVPRO2GT064	64	**9,482**
EVPRO2GM070	70	**7,175**	EVPRO2GP070	70	**7,911**	EVPRO2GT070	70	**9,484**
EVPRO2GM076	76	**7,180**	EVPRO2GP076	76	**7,913**	EVPRO2GT076	76	**10,463**
EVPRO2GM080	80	**7,489**				EVPRO2GT080	80	**10,949**
EVPRO2GM089	89	**7,688**	EVPRO2GP089	89	**10,878**	EVPRO2GT089	89	**11,435**
EVPRO2GM102	102	**7,865**	EVPRO2GP102	102	**13,296**	EVPRO2GT102	102	**15,975**
EVPRO2GM108	108	**8,011**	EVPRO2GP108	108	**13,298**			
EVPRO2GM114	114	**8,307**	EVPRO2GP114	114	**13,299**	EVPRO2GT114	114	**15,977**
EVPRO2GM125	125	**11,381**						
EVPRO2GM133	133	**11,693**						
EVPRO2GM140	140	**12,538**	EVPRO2GP140	140	**14,307**	EVPRO2GT140	140	**19,208**
EVPRO2GM160	160	**12,539**	EVPRO2GP160	160	**14,311**	EVPRO2GT160	160	**19,209**
EVPRO2GM170	170	**12,540**	EVPRO2GP170	170	**14,431**	EVPRO2GT170	170	**19,213**

Labour costs only

INSULATION TUBES, 2 m IN LENGTH, WITH A SELF-ADHESIVE LONGITUDINAL STRIP.

Thickness **6 mm**			Thickness **9 mm**			Thickness **13 mm**		
Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm)	Price €/m
EVPR2D010	10	**1,184**	EVPR2F010	10	**1,261**			
EVPR2D012	12	**1,204**	EVPR2F012	12	**1,283**	EVPR2H012	12	**1,479**
EVPR2D015	15	**1,261**	EVPR2F015	15	**1,340**	EVPR2H015	15	**1,593**
EVPR2D018	18	**1,285**	EVPR2F018	18	**1,359**	EVPR2H018	18	**1,658**
EVPR2D020	20	**1,308**	EVPR2F020	20	**1,395**	EVPR2H020	20	**1,742**
EVPR2D022	22	**1,318**	EVPR2F022	22	**1,434**	EVPR2H022	22	**1,772**
EVPR2D025	25	**1,349**	EVPR2F025	25	**1,489**	EVPR2H025	25	**1,772**
EVPR2D028	28	**1,382**	EVPR2F028	28	**1,512**	EVPR2H028	28	**1,866**
EVPR2D030	30	**1,499**	EVPR2F030	30	**1,670**	EVPR2H030	30	**1,897**
			EVPR2F032	32	**1,781**	EVPR2H032	32	**1,933**
EVPR2D035	35	**1,603**	EVPR2F035	35	**1,956**	EVPR2H035	35	**1,989**
			EVPR2F038	38	**2,014**	EVPR2H038	38	**2,070**
						EVPR2H040	40	**2,077**
EVPR2D042	42	**1,640**	EVPR2F042	42	**2,014**	EVPR2H042	42	**2,090**
			EVPR2F045	45	**2,158**	EVPR2H045	45	**2,206**
			EVPR2F048	48	**2,198**	EVPR2H048	48	**2,281**
						EVPR2H050	50	**2,336**
			EVPR2F054	54	**2,396**	EVPR2H054	54	**2,475**
			EVPR2F057	57	**2,512**	EVPR2H057	57	**2,620**
			EVPR2F060	60	**2,525**	EVPR2H060	60	**2,722**
			EVPR2F064	64	**2,678**	EVPR2H064	64	**2,796**
			EVPR2F070	70	**3,060**	EVPR2H070	70	**3,102**
			EVPR2F076	76	**3,124**	EVPR2H076	76	**3,324**
			EVPR2F080	80	**3,323**	EVPR2H080	80	**3,501**
			EVPR2F089	89	**3,331**	EVPR2H089	89	**3,907**
			EVPR2F102	102	**3,715**	EVPR2H102	102	**4,479**
			EVPR2F108	108	**4,742**	EVPR2H108	108	**5,327**
			EVPR2F114	114	**5,009**	EVPR2H114	114	**6,044**
						EVPR2H125	125	**6,688**
						EVPR2H133	133	**6,781**
			EVPR2F140	140	**6,150**	EVPR2H140	140	**6,914**
						EVPR2H160	160	**7,141**

Labour costs only

INSULATION TUBES, 2 m IN LENGTH, WITH A SELF-ADHESIVE LONGITUDINAL STRIP.

Thickness **19 mm**			Thickness **25 mm**			Thickness **32 mm**		
Code	Ø Piping (mm)	Price €/m	Code	Ø Piping (mm))	Price €/m	Code	Ø Piping (mm)	Price €/m
EVPR2M010	10	**1,930**						
EVPR2M012	12	**1,963**						
EVPR2M015	15	**2,008**						
EVPR2M018	18	**2,113**	EVPR2P018	18	**2,939**	EVPR2T018	18	**3,780**
EVPR2M020	20	**2,168**						
EVPR2M022	22	**2,180**	EVPR2P022	22	**3,054**	EVPR2T022	22	**3,824**
EVPR2M025	25	**2,297**						
EVPR2M028	28	**2,308**	EVPR2P028	28	**3,124**	EVPR2T028	28	**4,097**
EVPR2M030	30	**2,401**						
EVPR2M032	32	**2,494**						
EVPR2M035	35	**2,507**	EVPR2P035	35	**3,522**	EVPR2T035	35	**4,250**
EVPR2M038	38	**2,621**						
EVPR2M040	40	**2,726**						
EVPR2M042	42	**2,758**	EVPR2P042	42	**3,734**	EVPR2T042	42	**4,621**
EVPR2M045	45	**2,979**						
EVPR2M048	48	**2,988**	EVPR2P048	48	**4,040**	EVPR2T048	48	**4,926**
EVPR2M050	50	**3,082**						
EVPR2M054	54	**3,108**	EVPR2P054	54	**4,588**	EVPR2T054	54	**5,268**
EVPR2M057	57	**3,221**						
EVPR2M060	60	**3,380**	EVPR2P060	60	**5,100**	EVPR2T060	60	**5,710**
EVPR2M064	64	**3,815**	EVPR2P064	64	**5,204**	EVPR2T064	64	**5,801**
EVPR2M070	70	**3,952**	EVPR2P070	70	**5,279**	EVPR2T070	70	**6,345**
EVPR2M076	76	**4,136**	EVPR2P076	76	**5,636**	EVPR2T076	76	**6,583**
EVPR2M080	80	**4,869**				EVPR2T080	80	**6,699**
EVPR2M089	89	**4,999**	EVPR2P089	89	**6,178**	EVPR2T089	89	**6,712**
EVPR2M102	102	**5,792**	EVPR2P102	102	**6,840**	EVPR2T102	102	**7,618**
EVPR2M108	108	**6,044**	EVPR2P108	108	**7,919**			
EVPR2M114	114	**6,119**	EVPR2P114	114	**7,930**	EVPR2T114	114	**8,393**
EVPR2M125	125	**7,852**						
EVPR2M133	133	**8,031**						
EVPR2M140	140	**8,042**	EVPR2P140	140	**9,730**	EVPR2T140	140	**11,677**
EVPR2M160	160	**8,280**	EVPR2P160	160	**11,120**	EVPR2T160	160	**13,346**
EVPR2M170	170	**9,186**	EVPR2P170	170	**11,824**	EVPR2T170	170	**14,340**

IT-FLEX

TECHNICAL DOCUMENTATION

- ★ Thermal conductivity λ and insulation materials
- ★ Water vapour resistance factor μ
- ★ The calculation of insulation thicknesses - The prevention of condensation in systems working with cold fluids
- ★ CE markings and elastomeric insulation materials
- ★ The environmental sustainability of buildings

Thermal conductivity λ and insulation materials

• Thermal conductivity is defined by the λ (lambda value) symbol, and represents the quantity of heat passing through the contact surfaces of two materials, both of which have a volume of 1 cubic meter and a difference in temperature of 1 °C.

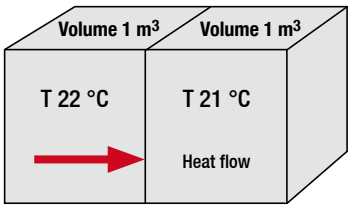
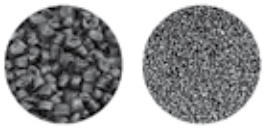


Illustration of heat flow passing between 2 surfaces

• Thermal conductivity is measured in W/m• K, and materials are considered insulation materials when their thermal conductivity λ value is lower than 0,100 W/m • K.

• Materials with the lowest λ value are considered as having the best insulation properties.

• For insulating materials, the main parameters which influence thermal conductivity are as follows:
- Chemical composition of the material
- Density (in general, a higher density corresponds to a higher λ value and therefore less effective insulating properties).
- Characteristics of the cell structure



Cell structure examples

• It is important to be able to simulate and stabilize the air quantity contained in its structure in order to guarantee an optimal λ value.

• Due to its intrinsic characteristics (compact molecular structure, dimensions of cells and high number of closed-cells), black closed-cell flexible elastomeric foam Insulation material (FEF) has low thermal conductivity values, which must meet the maximum values for these materials stipulated by the recent European Standard EN 14304, and should not exceed a value of 0,050 W/m• K (at a mean working temperature of 10 °C).

The following table defines the thermal conductivity values of the IT-FLEX C1 insulation material at the different mean temperatures as specified on the certificates issued by specialized laboratories.

MEAN TEMPERATURE °C	-30	-10	0	+20	+40	+70
λ (W/m•K)	0,033	0,034	0,035	0,037	0,038	0,040

Water vapour resistance factor μ

• This is defined by the μ (MU) symbol and is a measured value which determines the effectiveness of an insulating material to act as a barrier against water vapour transmission.

• It is an important parameter to assess the suitability of the insulation material, especially in applications such as refrigeration and air-conditioning systems which carry cold fluids.

• Higher μ values guarantee a longer life and greater efficiency of the insulation material.

• For thermal insulation materials in general, and especially for elastomeric foam, resistance to transmission of water vapour is strictly linked to the following characteristics:

- A molecular structure with a high amount of closed cells (> 90/95%)
- Small cell dimensions
- An excellent cohesion of the cell walls
- Homogeneous material thickness

• To prevent the risk of condensation, the external surface temperature of the insulation should be equal to or higher than the dew point in the working environment.

• μ CONVERSION FACTOR IN EQUIVALENT AIR THICKNESS

The following formula underlines how the air stratum can be obtained for a specific insulation material, taking into consideration that air, in normal conditions, is the best possible thermal insulation material compared to all others, with a thermal conductivity of 0,020 W/m• K.

From the formula: SA = u • s where

- SA = Equivalent air layer thickness (metres)

- μ = The water vapour resistance factor of the insulation material to be used

- s = Thickness (metres) of the insulation material to be used

Water vapour resistance factor μ

• Assuming the elastomeric foam IT-FLEX C1 will be used, with a water vapour transmission value of μ ≥ 7000, the equivalent air layer thickness resulting from the calculation would be as follows:

Thk. IT-FLEX insulation	6 mm	SA=7.000x 0,006	=	42 metres
Thk. IT-FLEX insulation	9 mm	SA=7.000x 0,009	=	63 metres
Thk. IT-FLEX insulation	13 mm	SA=7.000x 0,013	=	91 metres
Thk. IT-FLEX insulation	19 mm	SA=7.000x 0,019	=	135 metres
Thk. IT-FLEX insulation	25 mm	SA=7.000x 0,025	=	175 metres
Thk. IT-FLEX insulation	32 mm	SA=7.000x 0,032	=	224 metres
Thk. IT-FLEX insulation	40 mm	SA=7.000x 0,040	=	280 metres
Thk. IT-FLEX insulation	50 mm	SA=7.000x 0,050	=	350 metres
Thk. IT-FLEX insulation	60 mm	SA=7.000x 0,060	=	420 metres

N.B.

For information purposes it is important to clarify that water vapour transmission μ is purely a numeric comparison parameter used for making calculations.
This value is not used and is not among the parameters needed to calculate thermal dispersions, which are necessary to choose the correct insulation thickness for the various applications.

Calculation of insulation thickness to avoid the formation of condensation on pipeworks functioning with low temperature fluids - calculation rules

These are necessary for specific cases in which the fluids carried in the piping have a lower temperature than that of the external environment.

This combination is made worse due to the likely presence of humidity in the air of the environment which is a major cause of condensation formation. This can greatly reduce energy saving and can lead to severe corrosion of the system's pipework.

Therefore, the insulation has two purposes:

- to safeguard energy saving
- preserve and protect the installation (exposed to the air and its humidity), ensuring that the external surface temperature is never lower than the dew point temperature of the environment.

In order to establish the correct insulation thickness, the following data are necessary and a calculation should be made based on the formula illustrated below.

1) Temperature of the fluid in the system's piping

2) Temperature of the external environment

3) Ambient relative humidity

The formula is necessary to calculate the correct required insulation thickness in order to avoid the formation of condensation (basically, this calculation helps to obtain the value relative to the insulation applications on flat surfaces which however represent the maximum dispersed surfaces, and therefore the most difficult situations).

$$S = \frac{\lambda}{\alpha a} \times \left(\frac{ta - ti}{ta - tr} - 1 \right)$$

S = Insulation material thickness (expressed in meters)

λ = Thermal conductivity of the insulation material, expressed in W/m·K (the value obtained at the mean functioning temperature should be inserted).

α_a = External surface coefficient expressed as W/m²·K (data obtained from the following table).

ta = Ambient temperature °C

ti = Fluid temperature inside the pipework °C

tr = Air dew point temperature °C

α_a reference values for the calculation

Value	Type of ventilation
5 W/m²·K	Low ventilation
5 W/m²·K	Normal ventilation (internal environment)
5 W/m²·K	High ventilation (external environment)

Calculation of insulation thickness to avoid the formation of condensation on pipeworks functioning with low temperature fluids - The value of ta - tr is shown in table 1 below.

Table 1 - ta - tr value

Air Temperature °C	Maximum Humidity g/m3	Permitted air cooling °C until the formation of condensation for relative humidity														Maximum Humidity g/m3	Air Temperature °C
		30%	35%	40%	45%	50%	55%	60%	65%	70%	75%	80%	85%	90%	95%		
-20	0.90	-	10.4	9.1	8.0	7.0	6.0	5.2	4.5	3.7	2.9	2.3	1.7	1.1	0.5	0.90	-20
-15	1.40	12.3	10.8	9.6	8.3	7.3	6.4	5.4	4.6	3.8	3.1	2.4	1.8	1.2	0.6	1.40	-15
-10	2.17	12.9	11.3	9.9	8.7	7.6	6.6	5.7	4.8	3.9	3.2	2.5	1.8	1.2	0.6	2.17	-10
- 5	3.27	13.4	11.7	10.3	9.0	7.9	6.8	5.8	5.0	4.1	3.3	2.6	1.9	1.2	0.6	3.27	- 5
0	4.8	13.9	12.2	10.7	9.3	8.1	7.1	6.0	5.1	4.2	3.5	2.7	1.9	1.3	0.7	4.8	0
2	5.6	14.3	12.6	11.0	9.7	8.5	7.4	6.4	5.4	4.6	3.8	3.0	2.2	1.5	0.7	5.6	2
4	6.4	14.7	13.0	11.4	10.1	8.9	7.7	6.7	5.8	4.9	4.0	3.1	2.3	1.5	0.7	6.4	4
6	7.3	15.1	13.4	11.8	10.4	9.2	8.1	7.0	6.1	5.1	4.1	3.2	2.3	1.5	0.7	7.3	6
8	8.3	15.6	13.8	12.2	10.8	9.6	8.4	7.3	6.2	5.1	4.2	3.2	2.3	1.5	0.8	8.3	8
10	9.4	16.0	14.2	12.6	11.2	10.0	8.6	7.4	6.3	5.2	4.2	3.3	2.4	1.6	0.8	9.4	10
12	10.7	16.5	14.6	13.0	11.6	10.1	8.8	7.5	6.3	5.3	4.3	3.3	2.4	1.6	0.8	10.7	12
14	12.1	16.9	15.1	13.4	11.7	10.3	8.9	7.6	6.5	5.4	4.3	3.4	2.5	1.6	0.8	12.1	14
16	13.6	17.4	15.5	13.6	11.9	10.4	9.0	7.8	6.6	5.5	4.4	3.5	2.5	1.7	0.8	13.6	16
18	15.4	17.8	15.7	13.8	12.1	10.6	9.2	7.9	6.7	5.6	4.5	3.5	2.6	1.7	0.8	15.4	18
20	17.3	18.1	15.9	14.0	12.3	10.7	9.3	8.0	6.8	5.6	4.6	3.6	2.6	1.7	0.8	17.3	20
22	19.4	18.4	16.1	14.2	12.5	10.9	9.5	8.1	6.9	5.7	4.7	3.6	2.6	1.7	0.8	19.4	22
24	21.8	18.6	16.4	14.4	12.6	11.1	9.6	8.2	7.0	5.8	4.7	3.7	2.7	1.8	0.8	21.8	24
26	24.4	18.9	16.6	14.7	12.8	11.2	9.7	8.4	7.1	5.9	4.8	3.7	2.7	1.8	0.9	24.4	26
28	27.2	19.2	16.6	14.9	13.0	11.4	9.9	8.5	7.2	6.0	4.9	3.8	2.8	1.8	0.9	27.2	28
30	30.3	19.5	17.1	15.1	13.2	11.6	10.1	8.6	7.3	6.1	5.0	3.8	2.8	1.8	0.9	30.3	30
35	39.4	20.2	17.7	15.7	13.7	12.0	10.4	9.0	7.6	6.3	5.1	4.0	2.9	1.9	0.9	39.3	35
40	50.7	20.9	18.4	16.1	14.2	12.4	10.8	9.3	7.9	6.5	5.3	4.1	3.0	2.0	1.0	50.7	40
45	64.5	21.6	19.0	16.7	14.7	12.8	11.2	9.6	8.1	6.8	5.5	4.3	3.1	2.1	1.0	64.5	45
50	82.3	22.3	19.7	17.3	15.2	13.3	11.6	9.9	8.4	7.0	5.7	4.4	3.2	2.1	1.0	82.3	50

Table 2 - Thickness in mm of IT-FLEX C1 required to avoid the formation of condensation on flat surfaces

ta Ambient Temperature		+ 15 °C					+ 20 °C					+ 25 °C					+ 30 °C					+ 35 °C				
		60	70	80	85	90	60	70	80	85	90	60	70	80	85	90	60	70	80	85	90	60	70	80	85	90
FLUID TEMPERATURE °C	+ 15	-	-	-	-	-	-	-	-	4	8	-	-	7	11	19	-	6	12	18	31	5	10	17	25	41
	+ 10	-	-	-	4	8	-	-	7	12	20	-	6	13	19	31	6	10	18	26	42	7	12	22	32	51
	+ 5	-	-	8	12	19	-	7	13	19	31	6	10	18	26	41	8	13	23	33	54	10	16	27	39	62
	0	4	7	13	20	31	6	10	18	27	43	8	13	23	33	52	10	16	28	40	64	12	19	33	46	73
	- 5	6	10	18	27	41	9	14	24	34	55	10	16	28	40	63	12	19	33	46	74	14	22	37	52	82
	- 10	8	13	23	33	51	11	17	28	41	64	13	20	34	48	74	15	22	38	53	85	16	25	41	58	91
	- 20	13	20	33	48	72	15	23	37	53	83	16	25	41	58	89	19	28	47	66	104	20	31	51	72	112
	- 30	17	26	43	61	92	19	29	48	67	105	21	31	51	72	109	22	33	55	76	120	23	34	56	79	123

The CE Marking of flexible elastomeric foam (FEF)

SUMMARY

INTRODUCTION

A plan for a reduction of polluting emissions in the atmosphere was defined at a worldwide level in 1990 during the well-known Kyoto Conference and was aimed at encouraging the Member Countries to adopt an adequate energy policy which, without penalizing the environmental comfort, could boost a sustainable growth especially for developed countries.

The EU Member Countries, at that time already engaged in creating a united “future”, had already begun to introduce important regulations and standards (in certain specific sectors), aimed at implementing the Kyoto plan as soon as possible.

Among the different sectors, the building segment represented over 30% of the total energy consumption and was therefore worthy of prompt interventions.

DIRECTIVE 89/106/EEC and EU Regulation No.305/2011 of March 9, 2011.

The EU Directive for building materials (89/106/EEC) was promulgated by a panel of experts. It contained the main characteristics and parameters for the materials to be used, with the aim to guarantee more quality, safety, comfort and energy saving in the construction sector.

In March 2011 the EU Community approved the Regulation No. 305 published on April 4, 2011, which abrogated the EU Directive 89/106/ECC and officially came into force for manufacturers of building materials from July 1st 2013.

The aim of the Regulation was to guarantee, define all the conditions related to the commercialization of goods (free circulation in the EU) and to unify the administrative regulations in one single document, valid for all EU Member Countries.

The Regulation also updated the main requirements of building materials, including those of insulation materials used in the construction sector, as shown in the following Table 1.

The CE Marking of flexible elastomeric foam (FEF) - EUROPEAN STANDARD - EN 14304: 2009 + A1: 2013

LIST OF REQUIREMENTS AS PER REGULATION No. 305/2011 (Table 1)

CONSTRUCTION MATERIALS

- MECHANICAL RESISTANCE AND STABILITY
- SAFETY IN THE EVENT OF FIRE
- HYGIENE, HEALTH AND ENVIRONMENT
- SAFETY AND ACCESSIBILTY DURING UTILIZATION
- NOISE PROTECTION
- ENERGY SAVING AND HEAT RETENTION
- SUSTAINABLE USE OF NATURAL RESOURCES

INSULATION MATERIALS

- THERMAL CONDUCTIVITY
- REACTION TO FIRE
- WATER VAPOUR DIFFUSION
- SERVICE TEMPERATURE
- TYPE OF INSTALLATION (INSTABILITY)
- HEALTH AND SAFETY

Standard EN 14304 edition November 2009

With regards to building materials, the EU Directive stipulated that specific standards should be harmonized for each type of product, in order to guarantee its proper use, also based on its technical properties, some of which are not comparable between different types already on the market.

As regards Flexible Elastomeric Foam (FEF), the Standard EN 14304 was prepared and approved by the competent Technical Commission on November 2009, and published in the in the Official Journal of the European Union in 2010.

Manufacturers were informed that application of the new Standard for the purpose of CE Marking would become compulsory starting from August 1st 2012.

With the following tables we will try to provide the operators of this sector with some useful information regarding the contents and the obligations included in the Standard.

EUROPEAN STANDARD - EN 14304 - November 2009

THERMAL INSULATION PRODUCTS FOR BUILDING EQUIPMENT AND INDUSTRIAL INSTALLATIONS - FACTORY MADE FLEXIBLE ELASTOMERIC FOAM (FEF) PRODUCTS - SPECIFICATION

REQUIREMENTS AND OBLIGATIONS

The main technical specifications of elastomeric products for thermal insulation (FEF) included in the Standard are:

The CE Marking of flexible elastomeric foam (FEF)

- **thermal conductivity***
- **dimensions and relevant tolerances ***
- **dimension stability**
- **reaction to fire***
- **Min. and Max. service temperature**
- **water absorption**
- **resistance to water vapour diffusion***
- **trace quantities of water soluble ions and the pH value**
- **sound absorption**
- **release of dangerous substances***

The specifications marked with (*) in the above table 2 will be analyzed hereafter, because these are the most significant and helpful features for market operators.

THERMAL CONDUCTIVITY

This is defined as the most important characteristic of insulation materials, is defined with the λ (lambda) symbol and measured in W/m•K. Thus, the lower a material's lambda value, the better its ability to insulate. Usually a material is defined as being an insulation product when its thermal conductivity value is less than 0.100 W/m•K. The European Standard EN 14304 stipulates that the thermal conductivity value of elastomeric insulation products (FEF) must not exceed 0.050 W/m•K at a mean temperature of 10 °C.

The lambda value is determined by testing the products and is fixed by the following standards:

-EN 12667 for flat surface products (sheets) and EN 12939 for thicknesses.

-EN ISO 8497 for cylindric products (tubes).

It is defined along the whole range of the product's service temperatures (with a min. limit of -170 °C).
Tests must be performed on the minimum and maximum thicknesses of the full production range.
The manufacturer is allowed to declare just one lambda value, valid for the whole range of thicknesses, with the condition that the highest value resulting from the different tests is the one to be declared.

The CE Marking of flexible elastomeric foam (FEF)

DIMENSIONAL TOLERANCES

These are the variable sizes determined by the Standards:

- EN 822 and EN 823 for sheet panels, rolls and tapes.

- EN 13467 for tubes

The standard tolerances are as follows:

DIMENSIONAL TOLERANCES SPECIFIED BY EUROPEAN PRODUCT STANDARD EN 14304

Dimensions in mm **Key: D_i = inside diameter - D_{iD} = inside nominal diameter (Ref. Tubes) - d_D = Nominal thickness**

Form of delivery	Length	Width	Thickness		Squareness	Inside diameter	
			Declared	Tolerance		$D_i \le 100$	$D_i > 100$
Tubes	± 1,5%	-	$d_D \le 8$	**± 1**	3,0 mm	$D_{iD}+1 \le D_i \le D_{iD}+4$	$D_{iD}+1 \le D_i \le D_{iD}+6$
			$8 < d_D \le 18$	**± 1,5**	-		
			$18 < d_D \le 31$	**± 2,5**	-	-	-
			$d_D > 31$	**± 3**	-		
Sheets	± 1,5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Rolls	+ 5% - 1.5%	± 2%	$d_D \le 6$	**± 1**	3,0 mm/m (length/width)	-	-
			$6 < d_D \le 19$	**± 1,5**	-		
			$d_D > 19$	**± 2**	3,0 mm (thickness)		
Tapes	+ 5% - 1.5%	± 2%	$d_D = 3$	**- 0.1 + 1,5**	-	-	-

REACTION TO FIRE

In order to standardize and regulate at EU level one of the most important aspects linked to safety and security of the environment, i.e. the reaction to fire of building materials (insulation materials included), several standards were promulgated and enforced, as follows:

- EN 13501-1:2002 Classification based on reaction to fire for building materials Part 1 (Reaction to Fire)

The CE Marking of flexible elastomeric foam (FEF)

EUROCLASS - APPLICATION TABLE

<table>
<tr><th colspan="3">Reaction to fire classes</th><th colspan="3">Smoke classes</th><th colspan="3">Dripping classes</th></tr>
<tr><td>A1</td><td colspan="2">Incombustible</td><td colspan="3">No test required</td><td colspan="3">No test required</td></tr>
<tr><td>A2</td><td>  </td><td>Non Combustibile</td><td>s1</td><td>  </td><td>Limited or absent</td><td>d0</td><td>——</td><td>Absent for the first ten minutes</td></tr>
<tr><td>B</td><td>  </td><td rowspan="3">Level of combustion increasing from class B to class E</td><td>s2</td><td>  </td><td>Present</td><td>d1</td><td>  </td><td>Low dripping of incandescent material for less than 10 seconds</td></tr>
<tr><td>C</td><td>  </td><td>s3</td><td>  </td><td>Significant</td><td>d2</td><td>  </td><td>Significant</td></tr>
<tr><td>D</td><td>  </td><td colspan="3">No test</td><td colspan="3">No indications or d2</td></tr>
<tr><td>E</td><td>  </td><td colspan="6"></td></tr>
<tr><td>F</td><td colspan="8">N.d.P. Performance not declared</td></tr>
</table>

TEST REGULATION AND EUROPEAN CLASSIFICATION

EN 13501-1:2002	Fire classification of building products. Part 1 Fire behaviour
EN 13238:2001	Method of air-conditioning
EN ISO 1182: 2002	Non-combustibility test
EN ISO 1716:2002	Calculation of calorific values
EN ISO 11925-2:2002	Flammability of construction products in direct contact with flame
EN 13823:2002	Fire behaviour test for construction products excluding floors (S.B.I. test)
EN ISO 9239-1:2002	Fire behaviour test for floors (radiant panel)

In the specific case of elastomeric insulation products (FEF), which are part of the organic family, the best fire classification obtained is class B.

The CE Marking of flexible elastomeric foam (FEF)

N.B.
In the new european classification for all classes from **A2** to **E**, additional characteristics are required that are marked by the letters:

s = smoke

d = dripping

and should be included to the initial classification.

If tests are carried out separately on tubes, the initial classification will have a subscript BL, and for sheets it will be only B, as indicated below:

-B_L (tubes) i.e. B_L S2 d0

-B (sheets) i.e. B S3 d0

RESISTANCE TO WATER VAPOUR DIFFUSION

This property is definited by the μ (mu) symbol and is determined by the following standards:

-EN 12086 Flat products

-EN 13469 Cylindrical products

Alternatively, the **EN ISO 10456** Standard can be applied

The value should be indicated at intervals of 1000 to a maximum of 15000 and should never be less than the declared value, (this value should always be preceded by the symbol ≥ greater or identical), as shown in the following table:

RESISTANCE TO WATER VAPOUR DIFFUSION

LEVEL	DECLARED VALUE
1000	≥ 1000
2000	≥ 2000
3000	≥ 3000
4000	≥ 4000
↓	↓
15000	≥ 15000

The CE Marking of flexible elastomeric foam (FEF)

TRACES OF SOLUBLE IONS IN THE WATER, PH VALUE AND THE RELEASE OF DANGEROUS SUBSTANCES (Halogens)

- chlorides.
- fluorides.
- silicates.
- sodium.

The traces of CHLORIDE- FLUORIDE - SILICATE - SODIUM ions (that can cause possible corrosion of metal piping) together with the product's PH value, are evaluated based on the European Standard EN 13458.

MANUFACTURER'S OBLIGATIONS (EvocelI&Mobius S.r.l.)

a) Production control in the factory

b) Test of samples taken from the factory based on to a specific control plan

- OBLIGATIONS OF THE NOTIFIED BODY - For EvocelI&Mobius S.r.l. this is CSI Spa of BOLLATE, MILAN-n.0497

a) Initial product test

b) Initial inspection of the factory and the production control precedures

c) Permanent monitoring, evaluation and approval of factory production controls

The CE Marking of flexible elastomeric foam (FEF)

CE 01234	CE conformity marking, consisting of the "CE"-symbol given in Directive 93/68/EEC Identification number of the certification body (for products under system 1)
AmyCo Ltd, PO Box 21, B-1050 **09** 0134-CPD-00234	Name or identifying mark and registered address of the producer Two last digits of the year for affixing CE marking (ITT) Certificate number (for products under system 1)
EN 14304: 2009 Flexible Elastomeric Foam, intended to be used as thermal insulation product for building equipment and industrial installations Reaction to fire - Class B Thermal conductivity see Manufacturer's Literature FEF - EN - 14304 - ST(+) 115 - ST(-) 200 - MU 7000 - CL 1	No. of dated version of European Standard Description of the product and Information on regulated characteristics Designation code (in accordance with Clause 6 for the relevant characteristics according to Table ZA. 1)

FEF - EN-14304 Reference Standard

ST (+)-ST (-): Maximum and minimum service temperatures

MU 7000: Water vapour diffusion coefficient

CL1: Chloride ions soluble in water

The Regulation (EU) 305 / 2011 has modified and replaced some rules compared to the Directive 89/106/EEC as listed below:

1. The Declaration of Performance (Mandatory from july 1st 2013) repalces the Declaration of Conformity.

2. The Certificate of Constancy of Performance replaces the EC Certificate of Conformity released by the Notified Body.

Documentation relevant to CE Markings

Apart from the labelling previously illustrated, the documents accompanying the CE Trademark (updated when the European Regulation came into force) are as follows:

The product's Certificate of Constancy of Performance (substituting the Certificate of Conformity) released by the notified Body.

Declaration of Performance (DoP) released by the manufacturer, accompanied by the safety data sheet in accordance with the EU Regulation No.1907/2006 (Reach).

THE ENVIRONMENTAL SUSTAINABILITY OF BUILDINGS

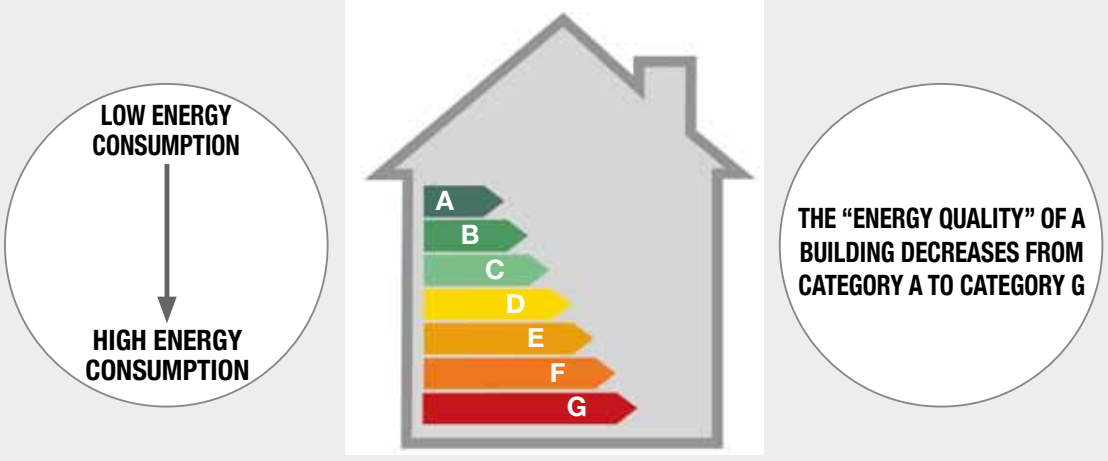
Introduction

In a era of renewed politics to safeguard the environment and its natural resources, strongly linked to construction and the protection of buildings (on a european level, the section of industry linked to construction comsumes approximately 45% of total energy, causing pollution and producing almost 50% of the total refuse) and as well as the need to continuously finalise Energy Performance Certificates, the prerequisites to study and promote their environmental sustainability through the following protocols.
The table illustrates the main features of the two types of certificates, aimed, as well as an improved management of traditional energy sources, at guaranteeing adequate personal and environmental protection.

COMPARISON OF THE 2 SYSTEMS

ENVIRONMENTAL CERTIFICATION	ENERGY PERFORMANCE CERTIFICATION
Declares the performance (and environmental impacts on health) of the building, including energy consumption.	Declares, through a class of attributed energy consumption (in KWh/mq year) in order to evaluate performance. Energy consumption increases starting from cat. A up until cat. G (see diagram)
IT IS VOLUNTARY **(It could become obligatory if required)** **• Needed to take advantage of tax incentives** **• For public buildings** **• For ERP buildings** **• For new public tenders**	**IT IS OBLIGATORY** **• For new buildings (Public and/or Private)** **• To take advantage of tax incentives** **• For deeds of sale**

DIAGRAM OF THE ENERGY EFFICIENCY CLASS ATTRIBUTIONS OF BUILDINGS



PROTOCOLS FOR THE CERTIFICATION OF THE ENVIRONMENTAL SUSTAINABILITY OF BUILDINGS

List of world wide protocols:

● **BREEM - ENGLAND**	**INBAR - ITALIA**
BLUE ANGEL - GERMANY	**ITACA - ITALY**
CASACLIMA - ITALY	● **LEED GBC - UNITED STATES**
● **CASBEE - JAPAN**	**MINERGIE ECO - SWITZERLAND**
ECOLABEL - EUROPE	**QUALITEL - FRANCE**
GREEN STAR - AUSTRALIA	**SB100 ANAB - ITALY**
HQE - FRANCE	**SWAN ECOLABELLING - NORTH EUROPE**

● The most widespread on a world wide scale are **LEED GBC, BREEM** and **CASBEE.**

The diffusion of the protocols in Italy is carried out by:

ITACA - the most widespread on a national level

LEED (GBC Italia) - in the Lombardy Trentino A.A. regions

CASACLIMA - Trentino A.A.

THE ENVIRONMENTAL SUSTAINABILITY OF BUILDINGS

Features of the ITACA and LEED protocols: analysis and differences

a) ITACA protocol

The ITACA Protocol is a system for the certification of the level of environmental sustainability of buildings of different uses. It is promoted by the Italian Regions and managed by a specific committee with representatives of the regions with the participation of the iiSBE Italy and ITC-CNR associations. The protocol is based on the SB Method, chosen in 2002 as a reference by the Italian regions.

● Homes ● Offices ● Shopping centres ● Industrial buildings

The analysis and evaluation was made based on specific tables based on predetermined criteria necessary to give buildings a score (see following table) which will identify the respected requirement.

Analysing and evaluating with the appropriate tables:

CONSUMPTION OF RESOURCES (Referring to energy and material consumption and the performance of its envelope)

THE QUALITY OF THE INTERNAL ENVIRONMENT (Thermal-hydrometric and acoustic comfort)

THE QUALITY OF THE SERVICE (The maintenance of performances during the operational phase)

INCREASING "ENVIRONMENTAL QUALITY"

SCORE	THE BUILDING'S REQUIREMENTS
-1	Inferior performance of the standard practice
0	Minimum acceptable performance (see current regulations)
1	Minor improvement compared to point 0
2	Significant improvement compared to point 0
3	Major improvement compared to point 0 (best practice)
4	Substantial increase of the best practice of point 3
5	Notable performance and of an advanced level compared to the best practice of point 3

b) LEED Protocol

This is the most widespread system on a world wide scale for the verification and certification of the environmental sustainability of buildings; in Italy it is promoted by **GBC ITALIA** and adapted to the national situation.
It consists of a rating system which allocates points in 7 specific areas and identifies both the obligatory prerequisites needed to obtain the certification of buildings and those which are optional which are necessary to obtain a higher classification level.

The reference areas are as follows:

- **Sustainability of the site**
- **Water**
- **Energy and atmosphere**
- **Materials and resources**
- **Quality of the internal environment**
- **Innovation**
- **Regional and/or local peculiarities (these are necessary to increase the score obtained in the previous areas)**

The scores and relative certifications are described in the following diagram:

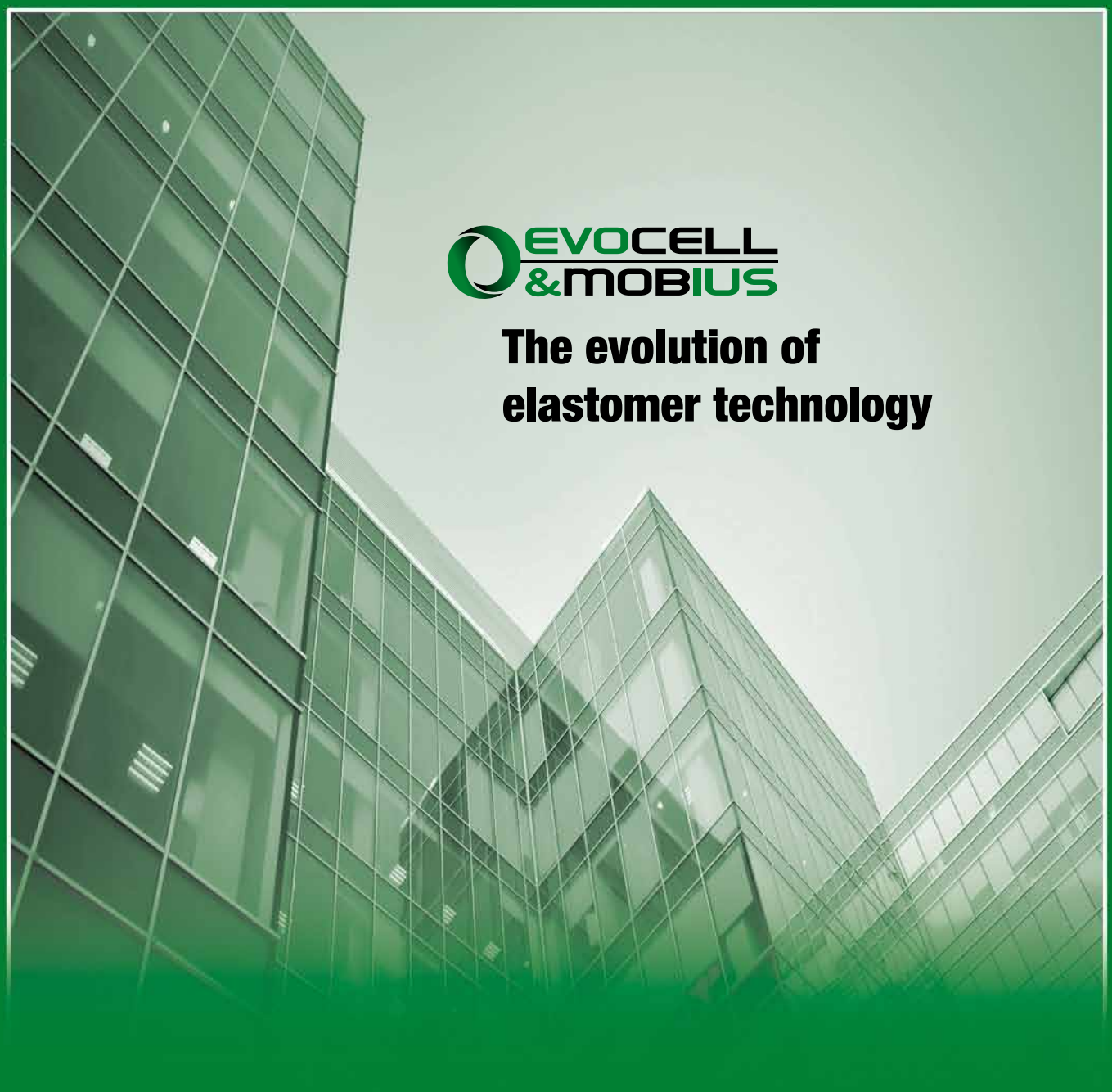
CERTIFICATE	from 40 to 49 punti
SILVER CERTIFICATE	from 50 to 59 punti
GOLD CERTIFICATE	from 60 to 79 punti
PLATINUM CERTIFICATE	> 80 points

"ENVIRONMENTAL QUALITY" BASED ON THE TOTAL SCORE

c) Table of the differences between the two protocols

ITACA Protocol	LEED Protocol
Greater importance is given to:	Construction phase with points-based allocation system for:
● **consumption**	● **impact on environmental repercussions**
● **CO2 emissions**	● **waste production**
● **management and maintenance of the building**	● **emission of harmful substances**

N.B.: In the evaluation and quantification of the environmental sustainability of a building, insulation material can play an important role in improving energy efficiency and acoustic performance, contributing to a higher score and therefore a higher certification, even if they are not taken into consideration in the points-based allocation system of the protocols.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Catalogue price list 2020/1

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