INSTALL IT. TRUST IT.

HT/ArmaFlex

Flexible elastomeric insulation material specially purposed for high temperature applications

// Professional solution for high temperature applications up to +150 °C
// UL approved
// System approach with fit-for-purpose ArmaFlex HT625 Adhesive

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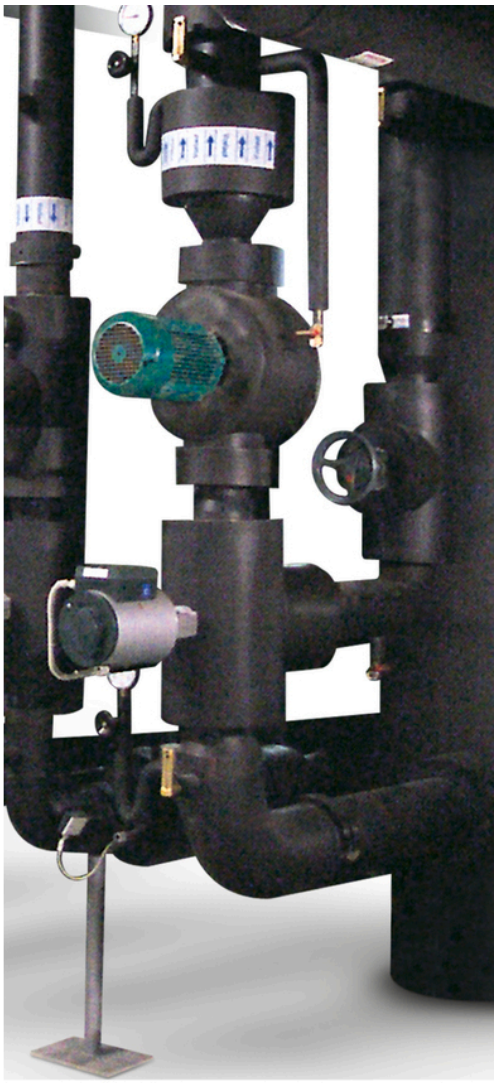
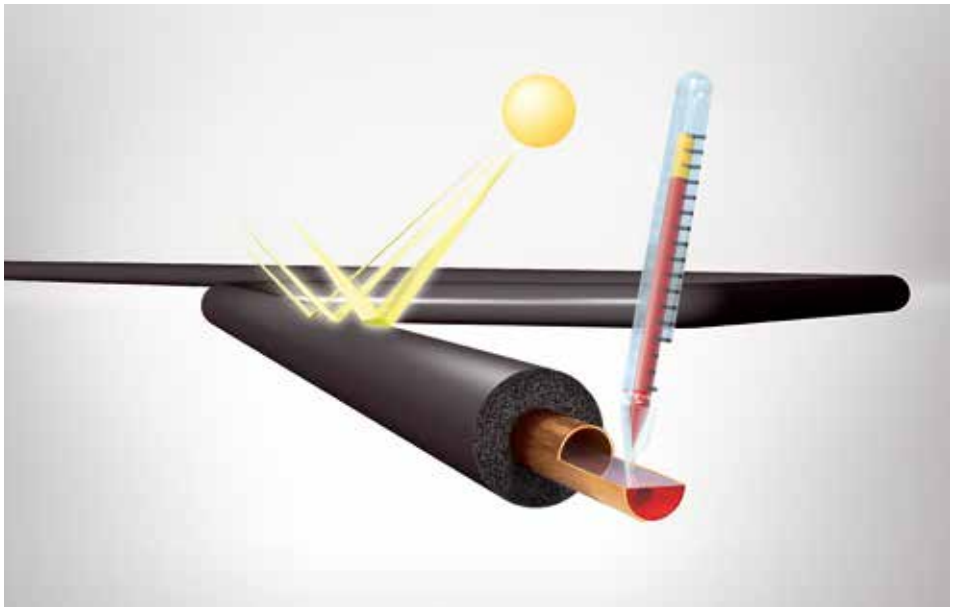
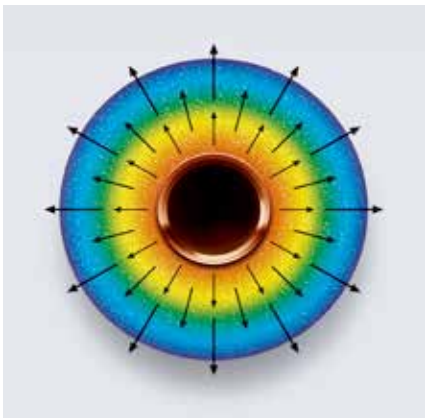


armacell®
ArmaFlex®

HT/ArmaFlex

THE EXPERT FOR HIGH TEMPERATURE





HT/ArmaFlex® is a flexible elastomer insulation material with exceptional resistance to UV radiation and high temperatures. Its closed cell structure and low thermal conductivity keep water vapour from diffusing in and reduce energy losses, protecting and optimising the efficiency and life time expectancy of the installation. While remaining flexible at application temperatures of up to 150°C, HT/ArmaFlex® is dust and fibre free and easy to install without special tools. The product does not need additional jacketing, does not degrade in sunlight and withstands incidental oil contact.

Thanks to the thermal properties of the insulation, the heat flow from pipelines insulated with HT/ArmaFlex® is kept at its utmost minimum. The evenly spread, homogenous and longterm stable closed cell structure prevents heat flow on the way of convection, ensuring very low thermal conductivity of the insulation material. This to keep the outer surface temperature at a low level and prevents unnecessary heat losses. Because of the flexibility of HT/ArmaFlex®, the huge temperature gradient of the thickness of insulation does not result in any internal stress.

TECHNICAL DATA - HT/ARMAFLEX

Brief description	HT/ArmaFlex is a highly flexible, closed-cell insulation material with resistance to UV radiation.
Material type	Factory-made flexible elastomeric foam based on ethylene propylene diene methylene (EPDM), according to EN 14304.
Product colour range	Black
Special features	UV resistance testing regarding of these materials showed excellent results. When used on outdoor applications, the materials showed very good durability even under UV exposure. However, due to the unpredictable nature of outdoor conditions in the whole variety of thinkable installations, there might be occasional weathering influences on the consistence of the material, which cannot be tested in advance. Therefore, installations in extreme environments (regions of extreme weather conditions like high mountains etc.) cannot be recommended. In case of doubt, please contact our Customer Service.
Applications	Thermal insulation of pipes, vessels and ducts in solar collectors (including outdoors), motor vehicles, hot gas lines, steam lines and dual temperature lines.
Installation	Please refer to the ArmaFlex application manual and more information is available in Armacell's Technical Bulletin No. 71. Use ArmaFlex HT625 adhesive for a reliable and seamless installation.

Property	Value / Assessment			Standard / Test method
Temperature range				
Service temperature[1,2]	Range	Min. °C	Max. °C[3]	EN 14706, EN 14707, EN 14304
	Full range	-50	150	
Thermal conductivity				
Declared thermal conductivity	θm	40°C		EN ISO 13787, EN 12667, EN ISO 8497
	λd ≤ [W/(m·K)]	0.042		
	Range	Tubes		
	Formula	λ = [36.92 + 0.125 · θm + 0.0008 · (θm-30)²] / 1000		
Declared thermal conductivity	θm	40°C		EN ISO 8497, EN ISO 13787, EN 12667
	λd ≤ [W/(m·K)]	0.045		
	Range	Sheets / Tapes		
	Formula	λ = [39.92 + 0.125 · θm + 0.0008 · (θm-30)²] / 1000		
Fire Performance and Approvals				
Reaction to fire	D(L)-s3,d0 (tubes) D-s3,d0 (sheets, tape)			EN 13501-1, EN ISO 11925-2, EN 13823
UL standards				
UL 94 V-0[4]	Pass			IEC 60695-11-10
Fire performance				
Practical fire behaviour	Self-extinguishing, does not drip, does not spread flames.			
Others	Class 1			BS 476 Part 7
Resistance to water vapour				
Water vapour diffusion resistance factor	≥ 4000 (tubes) ≥ 3000 (sheets, tapes)			EN 12086, EN 13469
Physical attributes				
Dimensions and tolerances	In accordance with EN 14304, table 1.			EN 822, EN 823, EN 13467
Weather and UV resistance				
UV resistance[5]	Very good			EN ISO 4892-2

Property	Value / Assessment	Standard / Test method
Health and environment		
Volatile organic compounds (VOC) content	Fulfills all VOC requirements (French, Italian, Belgian, German AgBB, Blauer Engel and Eurofins Indoor Air Comfort GOLD).	ISO 16000 Parts 3, 6 & 9
Environmental Product Declaration (EPD)	Type III Environmental Product Declaration (EPD): Declaration number "EPD-ARM-20200222-IBA1-EN", Institut Bauen und Umwelt e.V. (IBU)	
Green building assessment	Meets the sustainable construction requirements for LEED v4.1, BREEAM international, WELL v2 and DGNB.	
Additional features	SCCP, MCCP-free	
Other technical features		
AGI designation code	Tubes: 36.12.05.09.02 Sheets: 36.07.05.09.02	
Shelf life[6]	Tape, self-adhesive: 1 year	
Storage	Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0°C to 35°C).	

[1] For temperatures above +125 °C or below -50 °C, please contact our Customer Service Centre to request for the corresponding technical information.

[2] At high service temperatures, a certain hardening process may start on the inner surface of the material. Investigations have shown that these changes have no impact on the good physical and fire protection properties of the material, provided the material is installed in a correct way with all its joints properly sealed. For specific applications please consult our technical service.

[3] +85 °C, for products with a self-adhesive layer.

[4] Only for products without self-adhesive-layer.

[5] Extended exposure to certain conditions could result in aesthetic changes to insulation material. This includes examples such as minor discolouration, surface cracks or hardening of inner surface material due to extended exposure to high service line temperatures. These physical changes do not affect the technical performance of the insulation material, such as thermal conductivity and behaviour in case of a fire. For further information, please contact our Technical Service department.

[6] Shelf life (maximum storage time) is limited to ensure that only currently manufactured products are installed on projects. This limitation is restricted solely to storage of the product and does not affect the lifetime of product after it has been installed.

Tube – standard. 2m Length.

10 mm					13 mm				
Pipe Ø [mm]	Item	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]	Pipe Ø [mm]	Item	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]
10	**HT-10X010**	11	14	192 m	10	**HT-13X010**	11	14	140 m
12	**HT-10X012**	13	16	172 m	12	**HT-13X012**	13	16	130 m
15	**HT-10X015**	16	19	144 m	15	**HT-13X015**	16	19	112 m
18	**HT-10X018**	19	22	130 m	18	**HT-13X018**	19	22	98 m
22	**HT-10X022**	23	26	108 m	22	**HT-13X022**	23	26	84 m
28	**HT-10X028**	29	32	82 m	28	**HT-13X028**	29	32	64 m
35	**HT-10X035**	36	39	60 m	35	**HT-13X035**	36	39	50 m
42	**HT-10X042**	43	46	50 m	42	**HT-13X042**	43	46	40 m
-	-	-	-	-	48	**HT-13X048**	49	52	32 m
-	-	-	-	-	54	**HT-13X054**	55	58	32 m
-	-	-	-	-	60	**HT-13X060**	61	64	28 m
-	-	-	-	-	76	**HT-13X076**	77	80	24 m
-	-	-	-	-	89	**HT-13X089**	90	93	18 m

Other information	
Thickness tolerance	10 - 13 mm ± 1,5 mm 19 - 25 mm ± 2,5 mm
Length tolerance	± 1,5 %

Tube – standard. 2m Length.

19 mm					25 mm				
Pipe Ø [mm]	Item	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]	Pipe Ø [mm]	Item	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]
12	**HT-19X012**	13	16	80 m	15	**HT-25X015**	16	19	40 m
15	**HT-19X015**	16	19	64 m	18	**HT-25X018**	19	22	36 m
18	**HT-19X018**	19	22	58 m	22	**HT-25X022**	23	26	36 m
22	**HT-19X022**	23	26	50 m	28	**HT-25X028**	29	32	32 m
28	**HT-19X028**	29	32	48 m	35	**HT-25X035**	36	39	24 m
35	**HT-19X035**	36	39	32 m	42	**HT-25X042**	43	46	20 m
42	**HT-19X042**	43	46	24 m	48	**HT-25X048**	49	52	16 m
48	**HT-19X048**	49	52	22 m	54	**HT-25X054**	55	58	16 m
54	**HT-19X054**	55	58	18 m	60	**HT-25X060**	61	64	16 m
60	**HT-19X060**	61	64	16 m	76	**HT-25X076**	77	80	12 m
64	**HT-19X064**	65	68	16 m	89	**HT-25X089**	90	93	12 m
76	**HT-19X076**	77	80	18 m	-	-	-	-	-
89	**HT-19X089**	90	93	16 m	-	-	-	-	-

Other information	
Thickness tolerance	10 - 13 mm ± 1,5 mm 19 - 25 mm ± 2,5 mm
Length tolerance	± 1,5 %

Roll - standard

Item	Thickness [mm]	Width (m)	Length [m]	Content [metric]
HT-10-99/E	10	1	10	10 m²
HT-13-99/E	13	1	8	8 m²
HT-19-99/E	19	1	6	6 m²
HT-25-99/E	25	1	4	4 m²
HT-32-99/E	32	1	3	3 m²

Other information	
Thickness tolerance	10 - 19 mm ± 1,5 mm 25 - 32 mm ± 2,0 mm
Length tolerance	+ 5 % - 1,5 %

Coil

13 mm				19 mm			
Pipe Ø [mm]	Item	Length [m]	Content [metric]	Pipe Ø [mm]	Item	Length [m]	Content [metric]
15	HT-13X015/E	26	26 m	15	HT-19X015/E	16	16 m
18	HT-13X018/E	22	22 m	18	HT-19X018/E	14	14 m
22	HT-13X022/E	18	18 m	22	HT-19X022/E	12	12 m

Other information	
Thickness tolerance	10 - 13 mm ± 1,5 mm 19 - 25 mm ± 2,5 mm
Length tolerance	± 1,5 %

Tape – insulation

Item	Thickness [mm]	Width [mm]	Length [m]	Content [quantity]
HT-TAPE	3	50	15	12 roll

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ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With more than 3,300 employees and 25 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

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For more information, please visit:
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