

## 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



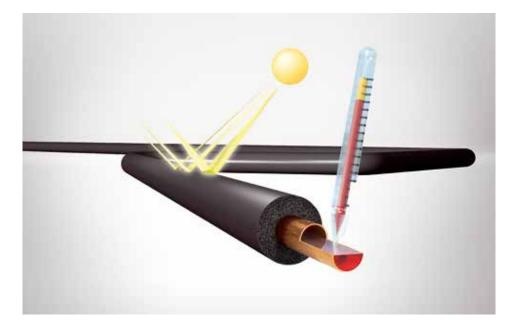


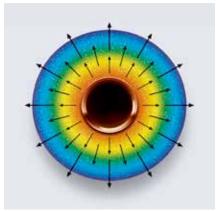


www.armacell.com.au



## HT/ArmaFlex The expert for HIGH TEMPERATURE





HT/ArmaFlex<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup>, 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 ArmaFl HT625 adhesive for a relial		nd more information is available in Armacell's Techn ation.	ical Bulletin No. 71. Use ArmaFl				
	_							
Property	Value / Assessment			Standard / Test method				
Temperature range	-							
Service temperature <sup>1,2</sup>	Range	Min. °C	Max. °C³	EN 14706, EN 14707, EN 14304				
	Full range	-50	150					
Thermal conductivity								
Declared thermal conductivity	θm		40°C	EN ISO 13787, EN 1266				
	λd < [W/(m·K)]		0.042	EN ISO 8497				
	Range		Tubes					
	Formula		$\overline{\lambda} = [36.92 + 0.125 \cdot \theta m + 0.0008 \cdot (\theta m - 30)^2] / 1000}$	0				
Declared thermal conductivity	θm		40°C	EN ISO 8497, EN ISO 13787, EN 12667				
	$\lambda d \leq [W/(m \cdot K)]$		0.045	13707, EN 12007				
	Range		Sheets / Tapes					
	Formula		$\lambda = [39.92 + 0.125 \cdot 0m + 0.0008 \cdot (0m - 30)^2] / 1000$	)				
Fire Performance and Approvals	5							
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	Pass			IEC 60695-11-10				
Fire performance								
Practical fire behaviour	Self-extinguishing, does not	drip, does not spread f	lames.					
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 1430	EN 822, EN 823, EN 13467						
Weather and UV resistance								
UV resistance <sup>4</sup>	Very good	EN ISO 4892-2						

Property

#### Value / Assessment

Standard / Test method

Health and environment						
Volatile organic compounds (VOC) content	nds Fulfills all VOC requirements (French, Italian, Belgian, German AgBB, Blauer Engel and Eurofins Indoor Air Comfort GOLD).					
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	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 life⁵	 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).					

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

<sup>2</sup>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. <sup>3</sup>+85 °C, for products with a self-adhesive layer.

<sup>4</sup> 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.

<sup>5</sup>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]	ltem	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]	Pipe Ø [mm]	ltem	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 informat	tion				J				
Thickness tole	rance		10 - 13 mm ± 1,! 19 - 25 mm ± 2,!						
Length toleran	ice		± 1,5 %						

#### Tube – standard. 2m Length.

19 mm					25 mm				
Pipe Ø [mm]	ltem	Inner diameter (minimum) [mm]	Inner diameter (maximum) [mm]	Content [metric]	Pipe Ø [mm]	ltem	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 informat	tion				I				
Thickness tole	rance		10 - 13 mm ± 1,! 19 - 25 mm ± 2,!						
Length toleran	ice		± 1,5 %						

#### Roll - standard

Item	Thickness [mm]	Width (m)	Length [m]	Content [metric]
HT-10-99/E	10	1	10	10 m <sup>2</sup>
HT-13-99/E	13	1	8	8 m <sup>2</sup>
HT-19-99/E	19	1	6	6 m <sup>2</sup>
HT-25-99/E	25	1	4	4 m <sup>2</sup>
HT-32-99/E	32	1	3	3 m <sup>2</sup>
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]	ltem	Length [m]	Content [metric]	Pipe Ø [mm]	ltem	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 informatio	n						
Thickness tolerance         10 - 13 mm ± 1,5 mm           19 - 25 mm ± 2,5 mm							
Length tolerance	th tolerance ± 1,5 %						

#### Tape – insulation

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

#### Adhesives and Cleaners

ltem	Description	Content [quantity]
ADH-HT625/0,25	ArmaFlex HT625 one-component adhesive. Available as 0.25 litre cans (with brush).	40 tin
ADH-HT625/0,5	ArmaFlex HT625 one-component adhesive. Available as 0.5 litre cans.	12 tin
ADH-HT625/1,0	ArmaFlex HT625 one-component adhesive. Available as 1.0 litre cans.	12 tin
CLEANER/1,0	Special cleaner for use with ArmaFlex adhesives	4 tin

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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 27 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.

