

INSTALL IT. TRUST IT.

HT/ArmaFlex

HT/ArmaFlex is a flexible elastomeric insulation material that is 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



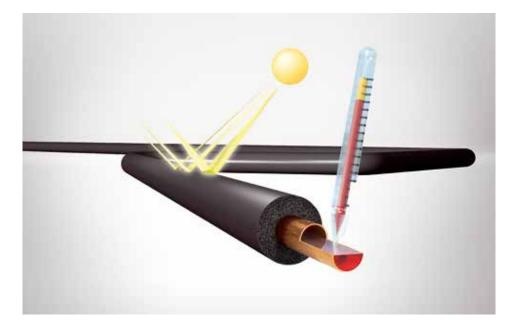


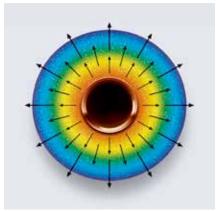


www.armacell.eu



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 highl | y flexible, closed-cell insulat | ion material with resis | tance to UV radiation. | | | | | |
|---|---|--|----------------------------------|-------------------------------------|---|--|--|--|--|
| Material type | Factory-made flexible e | Factory-made flexible elastomeric foam based on ethylene propylene diene methylene (EPDM), according to EN 14304. | | | | | | | |
| Product colour range | Black | Black | | | | | | | |
| Special features | very good durability event thinkable installations, advance. Therefore, ins | JV resistance testing regarding of these materials showed excellent results. When used on outdoor applications, the materials showed rery good durability even under UV exposure. However, due to the unpredictable nature of outdoor conditions in the whole variety of hinkable installations, there might be occasional weathering influences on the consistence of the material, which cannot be tested in idvance. Therefore, installations in extreme environments (regions of extreme weather conditions like high mountains etc.) cannot be ecommended. In case of doubt, please contact our Customer Service. | | | | | | | |
| Applications | Thermal insulation of p temperature lines. | ipes, vessels and ducts in so | lar collectors (includin | g outdoors), motor vehicles, hot g | as lines, steam lines and dua | | | | |
| Installation | | aFlex application manual an liable and seamless installa | | available in Armacell's Technical I | Bulletin No. 71. Use ArmaFle | | | | |
| Property | Value / Assessment | | | | Standard / Test method | | | | |
| Temperature range | | | | | | | | | |
| Service temperature ^{1,2} | Range | Min. °C | | Max. °C | EN 14706, EN 14707, EN | | | | |
| · | Full range | -50 | | 150 | — 14304 | | | | |
| | Remarks | +85 °C for tape | S. | | | | | | |
| Thermal conductivity | | | | | | | | | |
| Declared thermal conductivity | θm | | 40°C | EN ISO 13787, EN 12667 | | | | | |
| | λd < [W/(m·K)] | | 0,042 | — EN ISO 8497 | | | | | |
| | Range | | Tubes | _ | | | | | |
| | Formula | | $\lambda = [36.92 + 0.125 \cdot$ | θm + 0.0008 · (θm-30)²] / 1000 | | | | | |
| Declared thermal conductivity | θm | | 40°C | | EN ISO 8497, EN ISO | | | | |
| | λd < [W/[m·K]] | | 0,045 | | — 13787, EN 12667 | | | | |
| | Range | | Sheets / Tapes | | | | | | |
| | Formula | | $\lambda = [39.92 + 0.125 \cdot$ | θm + 0.0008 · (θm-30)²] / 1000 | | | | | |
| Fire Performance and Approvals | 6 | | | | | | | | |
| 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 fla | mes. | | | | | | |
| Others | Class 1 | | | | BS 476 Part 7 | | | | |
| Physical attributes | | | | | | | | | |
| Dimensions and tolerances | In accordance with EN 1 | 4304, table 1. | | | EN 822, EN 823, EN 13467 | | | | |
| Weather and UV resistance | | | | | | | | | |
| UV resistance ³ | Very good | | | | EN ISO 4892-2 | | | | |
| Health and environment | | | | | | | | | |
| Volatile organic compounds (VOC) content | Fulfills all VOC requirem Comfort GOLD). | ents (French, Italian, Belgiar | n, German AgBB, Blaue | er Engel and Eurofins Indoor Air | ISO 16000 Parts 3, 6 & 9 | | | | |

| Property | Value / Assessment | Standard / Test method | | |
|--|--|---------------------------|--|--|
| 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 | litional features SCCP, MCCP-free | | | |
| Other technical features | | | | |
| AGI designation code | Tubes: 36.12.05.09.02 Sheets: 36.07.05.09.02 | | | |
| Shelf life ⁴ | 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). | | | |

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

²At 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 Acting service imperatives, a certain hardening process may start of the material surface of the material, investigations have now that these changes have no impact of the grade 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. ³Extended 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 bigh 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. ⁴Shelf 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 | | | 10 mm | | | | | 13 mm | | | | |
|---------------|--|--|-----------|-------------------|--------------------------------|-------------|--|--|-----------|-------------------|--------------------------------|--|
| Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] | Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] | |
| 10 | 11 | 14 | HT-10X010 | 76122071210 32 | 192 m | 10 | 11 | 14 | HT-13X010 | 76122071212 61 | 140 m | |
| 12 | 13 | 16 | HT-10X012 | 76122071210 56 | 172 m | 12 | 13 | 16 | HT-13X012 | 76122071212 78 | 130 m | |
| 15 | 16 | 19 | HT-10X015 | 76122071210 70 | 144 m | 15 | 16 | 19 | HT-13X015 | 76122071212 85 | 112 m | |
| 18 | 19 | 22 | HT-10X018 | 76122071210 87 | 130 m | 18 | 19 | 22 | HT-13X018 | 76122071212 92 | 98 m | |
| 22 | 23 | 26 | HT-10X022 | 76122071211 00 | 108 m | 22 | 23 | 26 | HT-13X022 | 76122071213 22 | 84 m | |
| 28 | 29 | 32 | HT-10X028 | 76122071211 31 | 82 m | 28 | 29 | 32 | HT-13X028 | 76122071213 53 | 64 m | |
| 35 | 36 | 39 | HT-10X035 | 76122071211 55 | 60 m | 35 | 36 | 39 | HT-13X035 | 76122071213 77 | 50 m | |
| 42 | 43 | 46 | HT-10X042 | 76122071211 62 | 50 m | 42 | 43 | 46 | HT-13X042 | 76122071213 91 | 40 m | |
| - | - | - | - | - | - | 48 | 49 | 52 | HT-13X048 | 76122071214 14 | 32 m | |
| - | - | - | - | - | - | 54 | 55 | 58 | HT-13X054 | 76122071214 38 | 32 m | |
| - | - | - | - | - | - | 60 | 61 | 64 | HT-13X060 | 76122071214 52 | 28 m | |
| - | - | - | - | - | - | 76 | 77 | 80 | HT-13X076 | 76122071214 76 | 24 m | |
| - | - | - | - | - | - | 89 | 90 | 93 | HT-13X089 | 76122071214 90 | 18 m | |
| Other informa | ation | | | | | | | | | | | |
| Length tolera | nce | | ± 1,5 % | | | | | | | | | |

Tube – standard. 2m Length.

| 19 mm | | | | | 25 mm | | | | | | |
|-------------|--|--|-----------|-------------------|--------------------------------|-------------|--|--|-----------|-------------------|--------------------------------|
| Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] | Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] |
| 12 | 13 | 16 | HT-19X012 | 76122071215 20 | 80 m | 15 | 16 | 19 | HT-25X015 | 76122071217 35 | 40 m |
| 15 | 16 | 19 | HT-19X015 | 76122071215 37 | 64 m | 18 | 19 | 22 | HT-25X018 | 76122071217 42 | 36 m |
| 18 | 19 | 22 | HT-19X018 | 76122071215 51 | 58 m | 22 | 23 | 26 | HT-25X022 | 76122071217 59 | 36 m |
| 22 | 23 | 26 | HT-19X022 | 76122071215 75 | 50 m | 28 | 29 | 32 | HT-25X028 | 76122071217 73 | 32 m |
| 28 | 29 | 32 | HT-19X028 | 76122071216 05 | 48 m | 35 | 36 | 39 | HT-25X035 | 76122071217 80 | 24 m |
| 35 | 36 | 39 | HT-19X035 | 76122071216 12 | 32 m | 42 | 43 | 46 | HT-25X042 | 76122071217 97 | 20 m |
| 42 | 43 | 46 | HT-19X042 | 76122071216 29 | 24 m | 48 | 49 | 52 | HT-25X048 | 76122071218 03 | 16 m |
| 48 | 49 | 52 | HT-19X048 | 76122071216 36 | 22 m | 54 | 55 | 58 | HT-25X054 | 76122071218 10 | 16 m |

Tube – standard. 2m Length.

| 19 mm | | | | | 25 mm | | | | | | |
|---------------|--|--|-----------|-------------------|--------------------------------|-------------|--|--|-----------|-------------------|--------------------------------|
| Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] | Pipe Ø [mm] | Inner diameter (minimum) [mm] | Inner diameter (maximum) [mm] | ltem | EAN | Primary content [metric] |
| 54 | 55 | 58 | HT-19X054 | 76122071216 43 | 18 m | 60 | 61 | 64 | HT-25X060 | 76122071218 34 | 16 m |
| 60 | 61 | 64 | HT-19X060 | 76122071216 67 | 16 m | 76 | 77 | 80 | HT-25X076 | 76122071218 41 | 12 m |
| 64 | 65 | 68 | HT-19X064 | 76122074691 58 | 16 m | 89 | 90 | 93 | HT-25X089 | 76122071218 58 | 12 m |
| 76 | 77 | 80 | HT-19X076 | 76122071216 81 | 18 m | - | - | - | - | - | - |
| 89 | 90 | 93 | HT-19X089 | 76122071216 98 | 16 m | - | - | - | - | - | - |
| Other inform | ation | | | | | | - | _ | | _ | |
| Length tolera | ince | | ± 1,5 % | | | | | | | | |

Roll - standard

| ltem | Thickness [mm] | Width (m) | Length [m] | EAN | Primary content [metric] |
|-------------------|----------------|---------------|------------|---------------|--------------------------|
| HT-10-99/E | 10 | 1 | 10 | 7612207121247 | 10 m ² |
| HT-13-99/E | 13 | 1 | 8 | 7612207121506 | 8 m² |
| HT-19-99/E | 19 | 1 | 6 | 7612207121704 | 6 m ² |
| HT-25-99/E | 25 | 1 | 4 | 7612207121865 | 4 m ² |
| HT-32-99/E | 32 | 1 | 3 | 7612207121872 | 3 m ² |
| Other information | | | | | |
| Length tolerance | | + 5 % - 1,5 % | | | |

Coil

| 13 mm | | | | | 19 mm | | | | |
|----------------|-------------|------------|---------------|-----------------------------|-------------|-------------|------------|---------------|-----------------------------|
| Pipe Ø [mm] | ltem | Length [m] | EAN | Primary content [metric] | Pipe Ø [mm] | ltem | Length [m] | EAN | Primary content [metric] |
| 15 | HT-13X015/E | 26 | 7612207235753 | 26 m | 15 | HT-19X015/E | 16 | 7612207235784 | 16 m |
| 18 | HT-13X018/E | 22 | 7612207235760 | 22 m | 18 | HT-19X018/E | 14 | 7612207235791 | 14 m |
| 22 | HT-13X022/E | 18 | 7612207235777 | 18 m | 22 | HT-19X022/E | 12 | 7612207235807 | 12 m |
| Other informat | ion | | | | | | | | |
| Length toleran | се | | ± 1,5 % | | | | | | |

Tape – insulation

| ltem | Thickness [mm] | Width [mm] | Length [m] | EAN | Primary content [pieces] |
|---------|----------------|------------|------------|---------------|--------------------------|
| HT-TAPE | 3 | 50 | 15 | 7612207120875 | 12 roll |

Adhesives and Cleaners

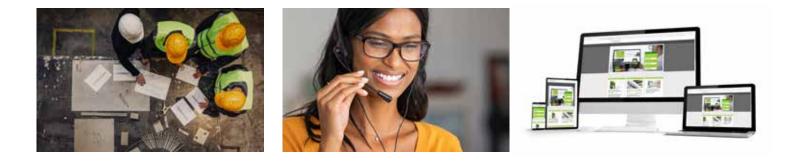
| Item | Description | Primary content [pieces] | |
|----------------|---|--------------------------|--|
| ADH-HT625/0,25 | ArmaFlex HT625 one-component adhesive. Available as 0.25 litre cans (with brush). | 40 tin | |
| ADH-HT625/0,5 | ArmaFlex HT625 one-component adhesive. Available as 0.5 litre cans. | 12 tin | |

Adhesives and Cleaners

| Item | Description | Primary content [pieces] | |
|----------------|---|--------------------------|--|
| 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 | |
| SF-CLEANER/1,0 | Solvent-free cleaner for use with ArmaFlex | 6 tin | |

OUR CUSTOMERS EXPECT THE BEST. WE WORK HARD TO GO BEYOND THAT AND EXCEED THEIR EXPECTATIONS.

At Armacell we want to create a unique customer experience. We understand the challenges of today's construction industry and support you in the successful delivery of your projects. From planning to delivery, our 360° service supports you throughout the entire process.



SERVICE AND TECHNICAL INFORMATION AVAILABLE 24/7

At Armacell, we do everything we can to ensure your project runs smoothly. This is why the information about the Armacell services you benefit from is available 24/7 from Armacell.com website as well as from our planning tools (BIM, specification documents, ArmaWin, as well as our sustainable building policy)

DEDICATED LOCAL CONTACTS

We aim to create open lines of communication with our customers. From on-site trainings and webinars by our Armacell technical experts advising on project planning and safety instructions to our local dedicated sales and customer services, your local Armacell dedicated team is working in partnership with you to achieve more together.

DIGITAL INFORMATION FLOWS

From order to delivery, we also provide you with digital information flows such as EDI and other wellknown data formats that are widely used in the construction sector worldwide.

LOGISTICS



OUR STANDARD LOGISTICS SERVICES INCLUDE

- // Material ordered will be shipped from our facilities within 48 hours after order confirmation
- // Full truck loads and full pallets
 (not mixed 1 SKU per pallet)
- // List prices in this document are based on Ex Works
- // Container loading with standard goods
- // Customs clearance (including documentation) for standard deliveries outside EU
- // Dangerous goods process for road freight

WE GO BEYOND STANDARD SERVICES AND ALSO PROPOSE YOU ADDITIONAL SERVICES*

OPIMISED PACKAGING

- Edge protection
- Strapping
- Doubled stretching
- Reinforced cardboard with extra layer
- Additional warning tape

LABELLING

 Extra label for transport instructions

EXTRA DELIVERY SERVICES

- Just in time delivery
- Delivery with lifting platform for partial or complete load
- Express and direct shipments
- Booking a delivery time slot via your EDP system
- Forklift truck for unloading at construction site
- Air and sea freight deliveries
- Dangerous goods shipment process for air and sea freight



To mitigate cost increases and reduce waste generation, we also propose a pallet return service* by which pallets can be handed at Armacell collection points. All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. Despite taking every precaution to ensure that said data and technical information are up to date, Armacell does not make any representation or warranty, express or implied, as to the accuracy, content or completeness of said data and technical information. Armacell also does not assume any liability towards any person resulting from the use of said data or technical information. Armacell reserves the right to revoke, modify or amend this document at any moment. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant building regulations lies with the customer. This document does not constitute nor is part of a legal offer to sell or to contract.

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ArmaFlex | HT/ArmaFlex | Brochure | 062023 | en-DE

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.

