



INSULATION
JUST GOT BETTER

ArmaGel[®] HTL

Flexible aerogel blanket for
high-temperature applications

- // ASTM C1728 compliant
- // Excellent protection against corrosion under insulation (CUI)
- // Hydrophobic and breathable
- // Non-combustible
- // More choice: 5, 10 and 20 mm thicknesses

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ArmaGel[®]

TECHNICAL DATA – ARMAGEL HTL

| | |
|-------------------|---|
| Brief description | ArmaGel HTL is a flexible aerogel insulation blanket suitable for high-temperature insulation applications up to 650 °C (1200°F). ArmaGel HTL is compliant with ASTM C1728, Type V, Grade 1A. |
| Material type | Aerogel blanket |
| Colour | Light grey |
| Special features | ArmaGel HTL is a highly flexible aerogel insulation blanket. It is hydrophobic and breathable providing the best-in-class corrosion under insulation (CUI) protection. |
| Product range | Sheets in rolls, 5, 10 and 20 mm (0.2, 0.4 and 0.8 in) thickness and width of 1.5 m (59 in). For further details, please refer to the product range tables at the end of this document. |
| Applications | Thermal insulation/protection of pipes, vessels, equipment, fittings and etc. in industrial and process facilities. |
| Installation | For industrial applications, it is recommended to consult the relevant Armacell application manual(s). Please consult our Technical Services for further information and support. |

| Property | Value/Assessment | | | | | Standard/Test method | |
|---|---|-------|-------|-------|------------------------|---|-------------------------------|
| Temperature | | | | | | | |
| Max. service temperature ^{*1} | +650 °C | | | | +1200 °F | Tested according to ASTM C411/C447 | |
| Thermal conductivity | | | | | | | |
| Thermal conductivity (metric units) | θm | +24 | +100 | +200 | +300 | [°C] | Tested according to ASTM C177 |
| | λd ≤ | 0.029 | 0.039 | 0.049 | 0.061 | [W/(m·K)] | |
| Thermal conductivity (imperial units) | θm | +75 | +212 | +392 | +572 | [°F] | Tested according to ASTM C177 |
| | λd ≤ | 0.20 | 0.27 | 0.34 | 0.42 | [Btu·in/(h·ft ² ·°F)] | |
| Fire performance | | | | | | | |
| Surface burning characteristics ^{*2} | Flame spread = 0 Smoke developed index = 0 | | | | | Tested according to ASTM E84 | |
| Reaction to fire | Non-combustible | | | | | Tested according to ISO 1182 | |
| Toxicity | Passed | | | | | Tested according to KS F 2271 | |
| Corrosion mitigation | | | | | | | |
| Stress corrosion cracking | Passed | | | | | Tested according to ASTM C692 | |
| Water resistance | | | | | | | |
| Water absorption | ≤ 8% | | | | | Tested according to ASTM C1763 | |
| Density | | | | | | | |
| Nominal density | 150 kg/m ³ | | | | 9.5 lb/ft ³ | Tested according to ASTM C303 / KS L 9102 | |



Other technical features

| | | |
|-----------------------------------|--|---|
| Weather resistance | In all industrial applications the outer layer of the material must be protected with an adequate covering like metal jacketing or preformed UV-cured GRP (Glass-Reinforced Plastic) cladding. Please contact Technical Services for guidance on the temperature limitations and specific construction considerations which need to be made for each jacketing system. | |
| Health aspects | Neutral | |
| Hydrophobic | Yes | |
| Fungal resistance | No growth / Rating 0 | Tested according to ASTM C1338 / ASTM G21 |
| Storage | Material shall be stored indoors, in clean and dry conditions, away from direct sunlight. | |
| Shelf (storage) life ³ | Max. 3 years | |

1. For temperatures above the published value, please contact Technical Services to request the corresponding technical information.
2. Based on single test results. Can be used for information / reference only.
3. Shelf life (maximum storage time) is limited in order to make sure that only currently manufactured products are applied 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.

Sheets

| | | Metric sizes | | | | Imperial sizes | | | |
|-----------------------|-----------------------------|----------------------------------|-------|--------|------------------|-------------------|-------|--------|------------------|
| | | Nominal thickness | Width | Length | Content per roll | Nominal thickness | Width | Length | Content per roll |
| | | [mm] | [m] | [m] | [sqm] | [in] | [in] | [ft] | [sq ft] |
| Standard Rolls | AGL-05-00/150S | 5 | 1.5 | 16 | 24 | 0.2 | 59 | 52.5 | 258.3 |
| | AGL-10-00/150S | 10 | 1.5 | 8 | 12 | 0.4 | 59 | 26.2 | 129.2 |
| | AGL-20-00/150S | 20 | 1.5 | 4 | 6 | 0.8 | 59 | 13.1 | 64.6 |
| Jumbo Rolls | AGL-05-00/150J | 5 | 1.5 | 80 | 120 | 0.2 | 59 | 262.5 | 1291.7 |
| | AGL-10-00/150J | 10 | 1.5 | 48 | 72 | 0.4 | 59 | 157.5 | 775.0 |
| | AGL-20-00/150J | 20 | 1.5 | 24 | 36 | 0.8 | 59 | 78.7 | 387.5 |
| Tolerances | Thickness tolerances | 5 mm (0.2 in) nominal thickness | | | | ± 1 mm | | | |
| | | 10 mm (0.4 in) nominal thickness | | | | ± 2.5 mm | | | |
| | | 20 mm (0.8 in) nominal thickness | | | | ± 4 mm | | | |
| | Width tolerances | ± 3% | | | | | | | |
| | Length tolerances | ± 5% | | | | | | | |

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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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, and generated net sales of EUR 806 million and an adjusted EBITDA of EUR 121 million in 2022. 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.

For more information, please visit:
www.armacell.com/armagel

