



INSULATION JUST GOT BETTER

ArmaGel HTL

Flexible aerogel blanket for high-temperature applications

- // ASTM C1728 Compliant
- // Non-combustible in accordance with ISO EN 1182 (A1)
- // Excellent protection against corrosion under insulation (CUI)
- // Hydrophobic and breathable
- // More choice: 5, 10 and 20 mm thicknesses



 **armacell**[®]
ArmaGel[®]

TECHNICAL DATA - ARMAGEL HTL

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|----------------------|--|
| 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. |
| Product colour range | 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). For further information please contact our Technical Services. |

| Property | Value / Assessment | | | | Standard / Test method | |
|---------------------------------------|--|----------------|------------------|------------------|------------------------|-----------|
| Temperature range | | | | | | |
| Service temperature ¹ | Max. °C | Max. °F | | | ASTM C447, ASTM C411 | |
| | 650 | 1,200 | | | | |
| Thermal conductivity | | | | | | |
| Declared thermal conductivity | θm | 24°C (75°F) | 100°C (212°F) | 200°C (392°F) | 300°C (572°F) | ASTM C177 |
| | λd ≤ [W/(m·K)] | 0.029 | 0.039 | 0.049 | 0.061 | |
| | k ≤ [Btu-in/(h-ft ² -°F)] | 0.20 | 0.27 | 0.34 | 0.42 | |
| Fire Performance and Approvals | | | | | | |
| Reaction to fire | A1 Non-combustible | | | | ISO 1182, EN 13501-1 | |
| Surface burning characteristics | Flame spread index ≤ 5 Smoke developed index ≤ 10 | | | | ASTM E84 | |
| Fire performance | | | | | | |
| Toxicity | Passed | | | | KS F 2271 | |
| Resistance to water | | | | | | |
| Hydrophobic | Yes | | | | | |
| Water absorption | ≤ 8% by weight | | | | ASTM C1763 | |
| Corrosion mitigation | | | | | | |
| Stress corrosion cracking | Passed | | | | ASTM C692 | |
| Physical attributes | | | | | | |
| Nominal density | 150 kg/m ³ (9.5 lb/ft ³) | | | | ASTM C303, KS L 9102 | |
| Weather and UV resistance | | | | | | |
| 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 and environment | | | | | | |
| Fungal growth | No growth / Rating 0 | | | | ASTM C1338, ASTM G21 | |
| Health aspects | Neutral | | | | | |
| Other technical features | | | | | | |
| Shelf life ² | Max. 3 years | | | | | |

| Property | Value / Assessment | Standard / Test method |
|----------|---|------------------------|
| Storage | Material shall be stored indoors, in clean and dry conditions, away from direct sunlight. | |

¹For use in temperatures beyond the published value, please contact Technical Services.

²Shelf 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.

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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.



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