

INSULATION JUST GOT BETTER

ArmaGel HTL

Flexible aerogel blanket for hightemperature applications

// Non-combustible

// More choice: 5, 10 and 20 mm thicknesses









TECHNICAL DATA - ARMAGEL HTL

Product color range Light grey	Brief description	ArmaGel HTL is a flexible aerogel insulation blanket suitable for high-temperature insulation applications up to 650°C (1200°F).					
Special features	Material type	Aerogel blanket.					
Insulation Coulty protection. Product range Sheet in Irolls \$1.00 and \$2 mm 10.2.0 \$4 and 0.3 ind thickness and width of 1.5 m 159 inl. For further details, please refer to the product range (ables at the end of this document of please, wessells, equipment, fittings and act. in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and process facilities. Installation Principles and set in industrial and and set industrial and set in industrial and set in indus	Product colour range	Light grey					
Property Applications Thermal insulation/protection of pipes, vessels, equipment, fittings and etc. in industrial and process facilities.	Special features						
Installation For industrial applications it is recommended to consult the relevant Armacett application manual(st. For further information please contact our fectionical Services. Property Value / Assessment Standard / Test method For method	Product range						lease refer to the product
Property Value / Assessment Standard / Test Standard / S	Applications	Thermal insulation/protection of pipes, vessels, equipment, fittings and etc. in industrial and process facilities.					
Max. or Max.	Installation	For industrial applications it is recommended to consult the relevant Armacell application manual(s). For further information please contact our Technical Services.					
Max. **C	Property	Value / Assessment					
	Temperature range						
Declared thermal conductivity Declared thermal conductivit	Service temperature ¹	Max. °C Max. °F					ASTM C447, ASTM C411
Declared thermal conductivity Passed Passe		650 1,200					
	Thermal conductivity						
Note	Declared thermal conductivity	θm					ASTM C177 - -
Fire Performance and Approvals Reaction to fire Non-combustible ISO 1182 Surface burning characteristics' Flame spread = 0 Smoke developed index = 0 Fire performance Toxicity Passed KS F 2271 Resistance to water Hydrophobic Yes Water absorption <8% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/t²) KS L 9102 Weather and UV resistance Weather and UV resistance Weather resistance linidustrial 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 Rating 0 ASTM 021 Other technical features Shelf Life¹ Max. 3 years		$\lambda d \leq [W/(m \cdot K)]$	0.029	0.039	0.049	0.061	
Reaction to fire Non-combustible ISO 1182 Surface burning characteristics Isame spread = 0 Smoke developed index = 0 Fire performance Toxicity Passed KS F 2271 Resistance to water Hydrophobic Yes Water absorption 8% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ [7.5 to 11.2 tb/ft³] KS L 9102 Weather and UV resistance 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years			0.20	0.27	0.34	0.42	
Surface burning characteristics Flame spread = 0 Smoke developed index = 0 Fire performance Toxicity Passed KS F 2271 Resistance to water Hydrophobic Yes Mare absorption 49% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C1763 Corrosion mitigation To 120 to 180 kg/m³ (7.5 to 11.2 lb/ft²) KS L 9102 Weather and UV 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 Rating 0 ASTM G21 Other technical features Max. 3 years Astm C21 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 ASTM E84 Other technical features ASTM E84 ASTM E84 ASTM E84 Other technical features ASTM E84 Other technical features ASTM E84 ASTM E84 ASTM E84 ASTM E	Fire Performance and Approvals	s					
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Toxicity Passed KS F 2271 Resistance to water Hydrophobic Yes Water absorption <8% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Surface burning characteristics	Flame spread = 0 Smoke developed index = 0					ASTM E84
Resistance to water Hydrophobic Yes Water absorption <8% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Fire performance						
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Water absorption <8% ASTM C1763 Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Resistance to water						
Corrosion mitigation Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ [7.5 to 11.2 lb/ft³] 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Hydrophobic	Yes					
Stress corrosion cracking Passed ASTM C692 Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Water absorption	< 8%					ASTM C1763
Physical attributes Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Corrosion mitigation						
Density 120 to 180 kg/m³ (7.5 to 11.2 lb/ft³) 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 Rating 0 ASTM G21 Other technical features Shelf life³ Max. 3 years	Stress corrosion cracking	Passed	ASTM C692				
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 Rating 0 ASTM G21 Other technical features Shelf life ³ Max. 3 years	Physical attributes						
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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 Rating 0 ASTM G21 Other technical features Shelf life ³ Max. 3 years	Weather and UV resistance						
Fungal growth Rating 0 ASTM G21 Other technical features Shelf life ³ Max. 3 years	Weather resistance	metal jacketing or pro Services for guidance	9				
Other technical features Shelf life ³ Max. 3 years	Health and environment						
Shelf life ³ Max. 3 years	Fungal growth	Rating 0	Rating 0				
	Other technical features						
Storage Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.	Shelf life ³	Max. 3 years					
	Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.					

 $^{^{\}rm 1} {\rm For}$ use in temperatures beyond the published value, please contact Technical Services.

 $^{^{\}rm 2} {\rm Based}$ on single test results. Can be used for information / reference only.

³Shelf 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 inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic 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 3200 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 high-tech and lightweight applications and next generation aerogel blanket technology.

