



INSULATION  
JUST GOT BETTER

# ArmaGel<sup>®</sup> 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

[www.armacell.com/armagel](http://www.armacell.com/armagel)



 **armacell**<sup>®</sup>  
ArmaGel<sup>®</sup>

## 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	
<b>Temperature</b>							
Max. service temperature <sup>*1</sup>	+650 °C				+1200 °F	Tested according to ASTM C411/C447	
<b>Thermal conductivity</b>							
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 <sup>2</sup> ·°F)]	
<b>Fire performance</b>							
Surface burning characteristics <sup>*2</sup>	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	
<b>Corrosion mitigation</b>							
Stress corrosion cracking	Passed					Tested according to ASTM C692	
<b>Water resistance</b>							
Water absorption	≤ 8%					Tested according to ASTM C1763	
<b>Density</b>							
Nominal density	150 kg/m <sup>3</sup>				9.5 lb/ft <sup>3</sup>	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 <sup>1,3</sup>	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]	
<b>Standard Rolls</b>	<b>AGL-05-00/150S</b>	5	1.5	16	24	0.2	59	52.5	258.3	
	<b>AGL-10-00/150S</b>	10	1.5	8	12	0.4	59	26.2	129.2	
	<b>AGL-20-00/150S</b>	20	1.5	4	6	0.8	59	13.1	64.6	
<b>Jumbo Rolls</b>	<b>AGL-05-00/150P</b>	5	1.5	65	97.5	0.2	59	213.3	1049.5	
	<b>AGL-10-00/150J</b>	10	1.5	48	72	0.4	59	157.5	775.0	
	<b>AGL-20-00/150J</b>	20	1.5	24	36	0.8	59	78.7	387.5	
<b>Tolerances</b>	<b>Thickness tolerances</b>	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			
	<b>Width tolerances</b>	± 3%								
	<b>Length tolerances</b>	± 5%								

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## ABOUT ARMACELL

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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.

For more information, please visit:  
[www.armacell.com/armagel](http://www.armacell.com/armagel)

