

INSULATION  
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# ArmaGel™ Rail

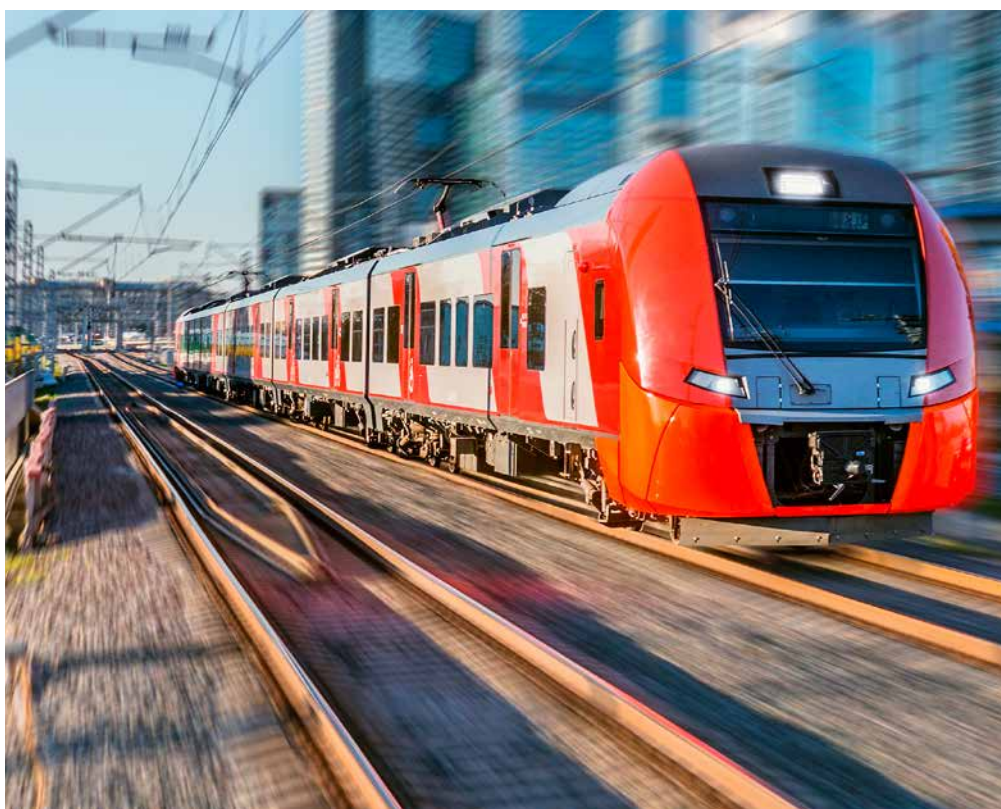
Double-side laminated flexible  
aerogel insulation blanket

// Approved in accordance with EN45545-02 HL3 (R1 / R7 / R17)

// Reduced space requirements to achieve exceptional  
thermal insulation properties in hot and cold climates

// Improved sound absorption properties

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ArmaGel™

## TECHNICAL DATA – ARMAGEL RAIL

Brief description	ArmaGel Rail is a laminated flexible aerogel insulation blanket suitable for rail applications,
Material type	Aerogel insulation blanket with double-side aluminium foil
Colour	Silver
Special features	ArmaGel Rail is intended for use as an efficient thermal insulation to maintain comfortable ambient temperatures inside the train in all conditions. The product is suitable for use in multi-layer applications with other products.
Product range	Sheets in rolls, 5, 10, 15 and 20 mm (0.20, 0.39, 0.59, 0.79 in) thickness and width of 1.5 m (59.00 in). For further details, please refer to the product range tables at the end of this document.
Applications	ArmaGel Rail can be used in HVAC systems, Walls, Ceilings, Floor and Door applications for efficient thermal insulation at very low thickness.
Installation	Please consult our Technical Services for further information and support.

Property	Value/Assessment		Standard/Test method
<b>Temperature range<sup>1</sup></b>			
Service temperature	Max. service temperature	+110 °C                      +230 °F	Please consult Armacell Technical Service for low-temperature applications
<b>Thermal conductivity</b>			
Thermal conductivity <sup>1</sup> (metric units)	θm	+24 [°C]	Tested according to ASTM C177, based on ArmaGel HT
	λd ≤	0.021 [W/(m·K)]	
Thermal conductivity <sup>1</sup> (imperial units)	θm	+75 [°F]	
	λd ≤	0.14 [Btu-in/(h·ft <sup>2</sup> ·°F)]	
<b>Temperature resistance</b>			
Water absorption	Maximum 8%		Tested according to ASTM C1763
<b>Fire performance &amp; approvals</b>			
	Set of requirements R1:	HL3	Tested according to EN45545-2. Test report No. 2020-1142-2
	Set of requirements R7:	HL3	
	Set of requirements R17:	HL3	
<b>Density</b>			
Density	160 to 240 kg/m <sup>3</sup>	10 to 15 lb/ft <sup>3</sup>	Tested according to ASTM C303
<b>Other technical features</b>			
Health aspects	Neutral		
Hydrophobic	Yes		
Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight.		
Shelf (storage) life <sup>2</sup>	Max. 3 years		

1. For temperatures below or above those published please contact Technical Services to request the corresponding technical information.

2. 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>Jumbo Rolls*</b>	<b>AGR-10-00/150P</b>	10	1.50	40.00	60.00	0.39	59.00	131.24	645.848
<b>Tolerances</b>	<b>Thickness tolerances</b>			5 mm (0.20 in) nominal thickness		5.0 - 7.0 mm			
				10 mm (0.39 in) nominal thickness		10.0 - 12.5 mm			
				15 mm (0.59 in) nominal thickness		15.0 - 17.5 mm			
				20 mm (0.79 in) nominal thickness		20.0 - 22.5 mm			
	<b>Width tolerances</b>						± 3%		
	<b>Length tolerances</b>						± 5%		

\* 5mm /15mm / 20mm thick blankets are available on request

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

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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 3,135 employees and 24 production plants in 16 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.

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

