HALOGEN-FREE INSULATION

NH/ArmaFlex

NH/ArmaFlex is the halogen-free, flexible elastomeric insulation material. Specify for applications requiring protection against toxic smoke containing chlorine, bromine or halogen gasses.

// Protective, halogen-free performance in flexible tubes, sheets and rolls
// Protects personnel and sensitive equipment
// Insulation for stainless steel applications below 250° F

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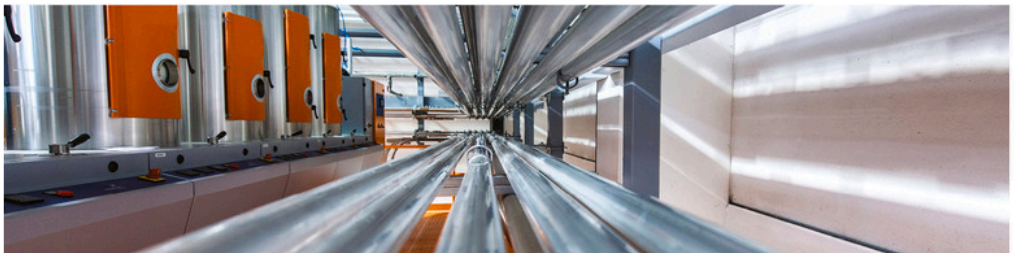

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TECHNICAL DATA - NH/ARMAFLEX

Brief description	NH/ArmaFlex is a nonhalogen elastomeric insulation developed for sweat control in environments that require specific protection against smoke containing acid gases. NH/ArmaFlex is an engineered closed-cell material that eliminates the toxic gases that may threaten personnel and sensitive electronic equipment including effects from chlorines, bromines or PVC. The closed cell structure makes NH/ArmaFlex an efficient thermal insulation and provides resistance to water vapor migration. For most applications, NH/ArmaFlex requires no supplemental vapor retarder.
Product range	Tubes: ID Range: 3/8" to 8" IPS (9 mm to 219 mm): Wall Thicknesses: 1/2", 3/4" and 1" (13 mm, 19 mm and 25 mm): Length: 6 feet (1.8 meter) Sheet: 3 feet x 4 feet (0.915 m x 1.22 m): Wall Thicknesses: 1/2", 3/4" and 1" (13 mm, 19 mm and 25 mm) Roll: Width; 4 feet (1.22 meter): Wall Thicknesses: 1/4" 1/2", 3/4" and 1" (6 mm, 13 mm, 19 mm and 25 mm): Lengths: 140 feet (42.8 meter) for 1/4"; 70 feet (21.4 meter) for 1/2"; 50 feet (15.2 meter) for 3/4"; 35 feet (10.7 meter) for 1". Tape: Thickness: 1/8" (3 mm) x Width: 2" (50 mm) x Length: 30 feet (9.1 meters) Available in Tube/Sheet/Roll.

Approvals and compliance

Specification compliance	• Manufactured without CFCs, HFCs, HCFCs, PBDEs, or Formaldehyde • All Armacell facilities in North America are ISO 9001 certified	• GREENGUARD Gold Certified	• ASTM C534 Grade 3 Type I for tubular	• ASTM C534 Grade 3 Type II for sheets

Property	Value / Assessment				Standard / Test method
Temperature range					
Service temperature[1]	Min. °C	Min. °F	Max. °C	Max. °F	ASTM C534
	-183	-297	120	250	
	Remarks	For applications below -50°C (-58°F), contact Armacell technical team.			
Thermal conductivity					
1 - Declared thermal conductivity W/(m·K)	Θm	32°F mean temperature (0°C)	75°F mean temperature (24°C)	90°F mean temperature (32°C)	ASTM C518
	λd ≤ [W/(m·K)]	0.036	0.039	0.041	
	k ≤ [Btu·in/(h·ft²·°F)]	0.248	0.270	0.282	
UL standards					
UL94 HF-1	Pass at 3.0 mm (1/8") and thicker				UL 94[2]
UL94 V-0	Pass at 5.9 mm (1/4") and thicker				UL94 V-0[2]
Fire performance					
Practical fire behavior	Self-extinguishing, does not drip, does not spread flames.				UL 94
Resistance to water vapour					
Water vapor permeability	0.05 perm-inch (0.725 x 10^{-13})Kg/(s m Pa)				ASTM E96, procedure A
Resistance to water					
Water absorption	0.2% by volume				ASTM C1763, ASTM C209
Physical attributes					
Density[3]	3 to 6 pounds per cubic feet (48 to 96 kilograms per cubic meter)				ASTM D1622, ASTM D1667
Health and environment					
Mold growth	Pass, meets requirements				ASTM C1338, ASTM G21
Additional features	Toxicity: Free from Halogens/Dioxin/CFC/Mercury/Carbon Black/Heavy Metals				

[1] At temperatures below -20°F (-29°C), elastomeric insulation starts to become less flexible. However, this does not affect the performance of NH ArmaFlex in terms of thermal efficiency and resistance to water vapor permeability.
[2] UL file number E535094

[3] For reference only.

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 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.

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