

INSTALL IT. TRUST IT.

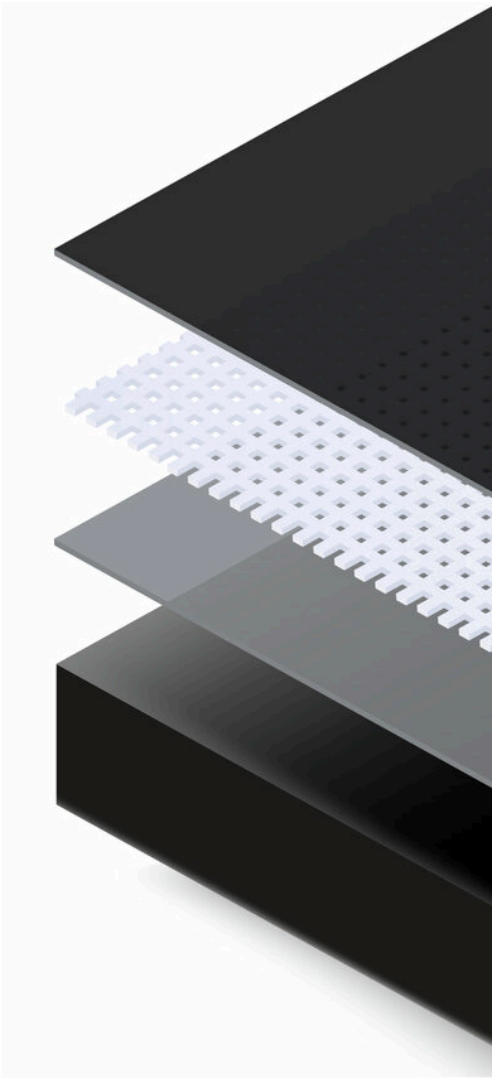
NH/ArmaFlex Smart C

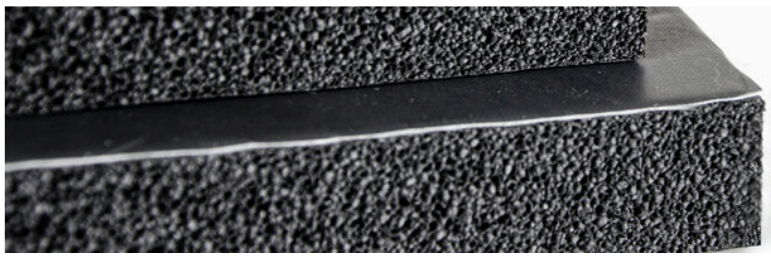
Flexible 2-in-1 halogen-free solution

// Protected insulation
// High mechanical resistance
// Advanced fire behavior
// IMO certified

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NH/ArmaFlex Smart C

Halogen-free, flame-retardant, and low-smoke insulation sheets designed for demanding environments. Ideal for insulating air ducts, tanks, and equipment, this pre-covered material offers excellent resistance to mechanical impact in marine, industrial, and building applications. It is easy to clean and enables cost-efficient installation in a single step. Its black, highly absorptive surface allows for reduced insulation thickness.

// Low smoke. High safety.
NH/ArmaFlex Smart C is IMO-certified and classified C-s2,d0 (EN 13501-1). It offers excellent fire performance, emitting 50 percent less smoke than conventional flexible elastomeric foams. Reduced smoke density improves visibility and makes escape and rescue routes easier to identify. As safety standards increasingly prioritise smoke development over heat release, this feature is essential. The halogen-free material does not release any corrosive gases, reducing the risk of acid formation from firefighting water and helping to minimise fire-related damage.

// Tough surface. Trusted protection.
Thanks to its robust foil surface, NH/ArmaFlex Smart C offers high resistance to mechanical impact, oils, and most chemicals. It ensures dependable protection against external damage in marine, industrial and construction applications alike.

// Fast to apply. Flexible to use.
NH/ArmaFlex Smart C allows for quick, one-step installation thanks to its pre-covered design. To speed up installation further, a self-adhesive variant is also available.

// Long-term performance
Thanks to its low thermal conductivity and high resistance to water vapour diffusion, this closed-cell material ensures long-term energy savings and reliable condensation control. This also helps minimise the risk of corrosion under insulation.

// Ready for sea. Built to comply.
In marine environments, the insulation can be installed in two steps - first with NH/ArmaFlex Smart, followed by a foil layer to meet IMO certification requirements. Alternatively, pre-covered sheets can be applied directly, offering both installation flexibility and full compliance. **NH/ArmaFlex Smart Foil is also available as a separate range.**



Halogen-free | Pre-covered | Ready for impact

TECHNICAL DATA - NH/ARMAFLEX SMART C

Brief description	NH/ArmaFlex Smart C is the new generation halogen-free, flexible closed-cell insulation material with an additional pre-covering for use in building and construction or marine industry.
Material type	Highly flexible closed-cell elastomeric foam material based on synthetic rubber. Factory-made flexible elastomeric foam (FEF), according to EN 14304. Covering: 25 µm Alufoil glossy (black), 204 g/m² high performance glass fabric, 12 µm Alufoil glossy.
Additional material information	Self-adhesive coating: pressure-sensitive adhesive coating on modified acrylate basis with mesh structure, covered with polyethylene foil. Traces of silicon can be found on the protection paper/foil used to protect self-adhesive closures.
Product colour range	FEF: black / anthracite Covering: black
Special features	Without halogens (chloride, bromide) according to DIN/VDE 0472, part 815. Fulfils DIN 1988-200.
Applications	Insulation / protection for rectangular air ducts of air-conditioning / refrigeration and ventilation to prevent condensation and save energy. IMO certified in combination with the entire NH/ArmaFlex Smart portfolio.
Installation	ArmaFlex 750 adhesive is a certified and compatible adhesive for a long-term performing system.
Declaration of performance	Declaration of Performance in accordance with Article 7(3) of Regulation (EU) No 305/2011 is available at www.armacell.com/DoP.

Property	Value / Assessment		Standard / Test method
Temperature range			
Service temperature	Min. °C[1]	Max. °C[2]	EN 14706, EN 14707, EN 14304
	-50	110	
Thermal conductivity			
Declared thermal conductivity	θm	+/- 0 °C	EN ISO 13787, EN 12667, EN ISO 8497
	λd ≤ [W/(m·K)]	0,040	
	Formula	[40 + 0,1· θm + 0,0009 · θm²]/1000	
Fire Performance and Approvals			
Reaction to fire	sheets, tape C-s2, d0		EN 13501-1, EN 13823, EN ISO 11925-2
Surface flammability	low-flammable - 2010 FTP-Code		IMO 2010 FTP Code, Part 5[3]
Fire performance			
Practical fire behaviour	self-extinguishing, does not drip, does not spread flames		
Resistance to water vapour			
Water vapour diffusion resistance factor	µ ≥ 10000		EN 12086, EN 13469
Physical attributes			
Dimensions and tolerances	In accordance with EN 14304, table 1		EN 822, EN 823, EN 13467
Weather and UV resistance			
UV resistance[4]	High. (see Technical Bulletin no. 142)		ISO 4892
Health and environment			
Green building assessment	Meets the sustainable construction requirements for DGNB QS4 Platin and BNB QN 2-5.		
Additional features	SCCP, MCCP, LCCP-free		
Other technical features			
Shelf life	Self-adhesive tapes, self-adhesive sheets: 1 year		
Storage	Can be stored in dry, clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0 °C – 35 °C).		

[1] For temperatures below -50 °C please contact our Customer Service Center to request for the corresponding technical information.

[2] +85 °C, for products with a self-adhesive layer.

[3] According to IMO 2010 FTP Code annex 2, clause 2.2 a fire technical test for smoke density and toxicity is not necessary.

[4] If ArmaFlex is used outdoors or in applications under UV radiation, it should be protected with ArmaFinish Paint, or a covering such as ArmaClad Arma-Chek within 3 days of installation.

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 insulation solutions that create sustainable value for its customers. Armacell's products significantly contribute to driving energy efficiency worldwide. With more than 3,100 employees and 26 production plants in 20 countries, Armacell 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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For more information, please visit:
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