

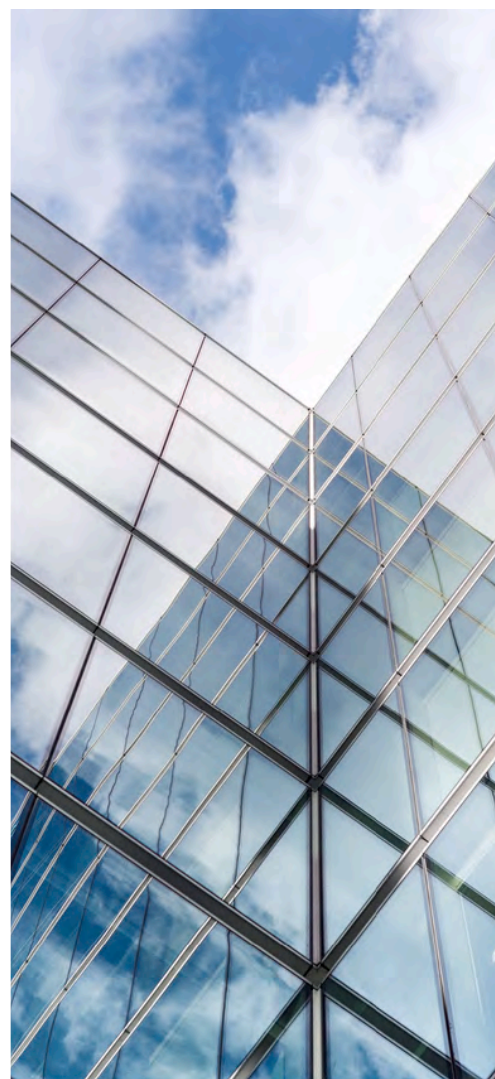


INSTALL IT. TRUST IT.

NH/ArmaFlex Smart

Halogen-free insulation without compromises

- // Increases equipment life cycle
- // High flexibility and ease of installation
- // Reliable condensation control and prevention of corrosion under insulation (CUI)



 **armacell**[®]
ArmaFlex[®]

INSTALL IT. TRUST IT.

NH/ArmaFlex® Smart

We are taking our halogen-free insulation material to the next level. Our NH/ArmaFlex Smart is a highly flexible elastomeric foam, which is faster and easier to install. A unique new technology which will make a real difference for our customers and the industry.

NH/ArmaFlex Smart. Innovation reloaded.



// Excellent fire behaviour

NH/ArmaFlex Smart releases 50 percent less smoke than conventional flexible elastomeric foam products. In the event of a fire, smoke hinders visibility, makes it difficult to locate escape and rescue routes. Today, therefore, experts attach greater importance to smoke development and smoke density than to heat release.

// Less consequential fire damage

In a fire, NH/ArmaFlex Smart does not release corrosive gases, which in combination with extinguishing water can form aggressive acids. In areas requiring special protection, such as data centres or clean room industries, the consequential fire damage can soon amount to many times the cost of the actual fire damage.

// Resistant to uv-light and ageing

NH/ArmaFlex Smart has excellent UV and ageing resistance. The resistance to light ageing was confirmed in accelerated radiation tests. The halogen-free insulation material has outstanding light stability. Indoors it can be exposed to natural and artificial light without the need for additional cladding.

// Reliable thermal and condensation control

Thanks to its low thermal conductivity and high resistance to water vapour diffusion, the closed-cell NH/ArmaFlex Smart ensures reliable condensation control and high energy savings in the long-term. This also minimises the risk of corrosion under the insulation. of 25 mm.

Pascal Beuing

Insulator at Schmengler Dämmtechnik Havixbeck (Germany)

"Wow! That's how flexible a halogen-free insulation tube can be. The new material feels completely different. The surface is much smoother and the product is altogether more stable. Armacell has reinvented NH/ArmaFlex."

50%
LESS
SMOKE

Halogen-free insulation without compromises.

// Prevents stress corrosion cracking

Stress corrosion cracking can occur on austenitic stainless steels when stresses, moisture and chlorine ions occur simultaneously. As a halogen-free product, NH/ArmaFlex Smart can minimise the risk of stress corrosion cracking.

Armacell has developed the new ArmaFlex 750 adhesive to be used with NH/ArmaFlex Smart.



// System solution for maximum reliability

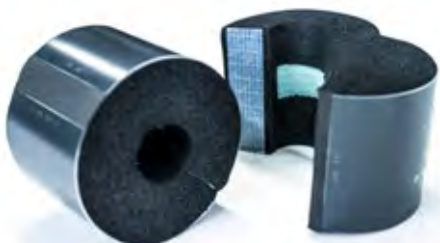
The ArmaFix NH Smart pipe support thermally isolates the pipe and its fixing from each other and, together with the adjoining NH/ArmaFlex Smart insulation, forms an insulation system for refrigeration equipment which is reliable in the long-term.

// High environmental sustainability

NH/ArmaFlex Smart is halogen-free, it contains neither PVC nor chlorinated polyethylene. It is produced without adding brominated flame retardants and is free of chlorinated paraffins. Short-chain chlorinated paraffins are considered hazardous to health and the environment and their production has been discontinued in Europe. NH/ArmaFlex Smart contains neither short-, medium- nor long-chain chlorinated paraffins. The product meets the German Sustainable Building Council's highest quality level for flame-retardant building products.

// NH/ArmaFlex Smart C. Flame-retardant sheets

With our new NH/ArmaFlex Smart C, we now offer halogen-free, flame-retardant and low-smoke insulation sheets. Especially engineered for the insulation of airducts and tanks, this pre-covered material provides a high level of protection against mechanical impact and is easy to clean. Unlike traditional insulation materials and jackets, the pre-covered sheets can be applied cost-efficiently in a single step. What's more, the black surface is highly absorptive and thinner insulation thicknesses can be installed to control condensation.



The load-bearing segments are based of environmentally friendly, recycled PET.

C-s2,d0



TECHNICAL DATA - NH/ARMAFLEX SMART

Brief description	NH/ArmaFlex Smart is the new generation halogen-free, flexible closed-cell insulation material with certification for use in any building and construction types.
Material type	Factory-made flexible elastomeric foam based on ethylene propylene diene methylene (EPDM), according to EN 14304.
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	Black
Special features	Halogen-free (chloride, bromide) acc. to DIN / VDE 0472, part 815.
Applications	Insulation/protection for pipes, air ducts, vessels (including elbows, fittings, flanges, etc.) of air-conditioning/refrigeration, ventilation and process equipment to prevent condensation and save energy.
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 -50	Max. °C ² 110
		EN 14706, EN 14707, EN 14304
Thermal conductivity		
Declared thermal conductivity	θ_m $\lambda d \leq [W/(m \cdot K)]$ Formula	$\pm 0 \text{ } ^\circ\text{C}$ 0,040 $[40 + 0,1 \cdot \theta_m + 0,0009 \cdot \theta_m^2]/1000$
		EN ISO 13787, EN 12667, EN ISO 8497
Fire Performance and Approvals		
Reaction to fire	Tubes, open tubes: D(L)-s2, d0 Sheets, tape: E	EN 13501-1, EN 13823, EN ISO 11925-2
UL standards		
UL 94 HBF ³	Pass	ISO 9772, UL 94, UL 746B
Fire performance		
Practical fire behaviour	self-extinguishing, does not drip, does not spread flames	
Resistance to water vapour		
Water vapour diffusion resistance factor	$\mu \geq 2000$	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)	
Health and environment		
Volatile organic compounds (VOC) content	Fulfills all VOC requirements (French, Italian, Belgian, German AgBB, Blauer Engel and Eurofins Indoor Air Comfort GOLD).	ISO 16000 Parts 3, 6 & 9
Environmental Product Declaration (EPD)	Type III Environmental Product Declaration (EPD): Declaration number "EPD-ARM-20220037-IBB1-EN", Institut Bauen und Umwelt e.V. (IBU)	ISO 14025, EN 15804+A2
Green building assessment	Meets the sustainable construction requirements for LEED v4.1, BREEAM international and DGNB.	
Additional features	SCCP, MCCP, LCCP-free	

Property	Value / Assessment	Standard / Test method
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 Only for products without self-adhesive-layer.

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.

Tube – standard. Black / Anthracite. Length: 2.0m

9 mm				13 mm				19 mm			
Pipe Ø [mm]	Item	EAN	Content [metric]	Pipe Ø [mm]	Item	EAN	Content [metric]	Pipe Ø [mm]	Item	EAN	Content [metric]
10	NHS-09X010	7612207488678	192 m	10	NHS-13X010	7612207487985	140 m	15	NHS-19X015	7612207488241	64 m
12	NHS-09X012	7612207488708	172 m	12	NHS-13X012	7612207487992	130 m	18	NHS-19X018	7612207488265	58 m
15	NHS-09X015	7612207488715	144 m	15	NHS-13X015	7612207488029	112 m	22	NHS-19X022	7612207488289	50 m
18	NHS-09X018	7612207488722	130 m	18	NHS-13X018	7612207488012	98 m	28	NHS-19X028	7612207488302	48 m
22	NHS-09X022	7612207488685	108 m	22	NHS-13X022	7612207488043	84 m	35	NHS-19X035	7612207488326	32 m
28	NHS-09X028	7612207488692	82 m	28	NHS-13X028	7612207488067	64 m	42	NHS-19X042	7612207488340	24 m
35	NHS-09X035	7612207488739	60 m	35	NHS-13X035	7612207488104	50 m	48	NHS-19X048	7612207488364	22 m
42	NHS-09X042	7612207488746	50 m	42	NHS-13X042	7612207488128	40 m	54	NHS-19X054	7612207488388	18 m
48	NHS-09X048	7612207487954	42 m	48	NHS-13X048	7612207488142	32 m	60	NHS-19X060	7612207488401	18 m
-	-	-	-	54	NHS-13X054	7612207488166	32 m	76	NHS-19X076	7612207488425	16 m
-	-	-	-	60	NHS-13X060	7612207488180	28 m	89	NHS-19X089	7612207488449	16 m
-	-	-	-	76	NHS-13X076	7612207488203	24 m	114	NHS-19X114	7612207487886	8 m
-	-	-	-	89	NHS-13X089	7612207488210	18 m	-	-	-	-

Other information

Thickness tolerance 9 mm, 13 mm : ±1,5 mm
 19 mm, 25 mm, 32 mm : ±2,5 mm

Length tolerance ±1,5%

Tube – standard. Black / Anthracite. Length: 2.0m

25 mm				32 mm			
Pipe Ø [mm]	Item	EAN	Content [metric]	Pipe Ø [mm]	Item	EAN	Content [metric]
12	NHS-25X012	7612207488487	50 m	15	NHS-32X015	7612207488753	32 m
15	NHS-25X015	7612207488494	40 m	18	NHS-32X018	7612207488760	30 m
18	NHS-25X018	7612207488500	36 m	22	NHS-32X022	7612207488777	28 m
22	NHS-25X022	7612207488517	36 m	28	NHS-32X028	7612207487916	24 m
28	NHS-25X028	7612207488524	32 m	35	NHS-32X035	7612207487923	18 m
35	NHS-25X035	7612207488531	24 m	42	NHS-32X042	7612207487800	16 m
42	NHS-25X042	7612207488548	20 m	48	NHS-32X048	7612207487817	12 m
48	NHS-25X048	7612207488555	16 m	54	NHS-32X054	7612207487855	12 m
54	NHS-25X054	7612207488562	16 m	60	NHS-32X060	7612207487862	10 m
60	NHS-25X060	7612207488579	16 m	76	NHS-32X076	7612207487879	8 m
76	NHS-25X076	7612207488586	12 m	89	NHS-32X089	7612207487824	6 m
89	NHS-25X089	7612207488593	12 m	108	NHS-32X108	7612207487831	4 m
114	NHS-25X114	7612207487893	6 m	114	NHS-32X114	7612207487848	4 m
125	NHS-25X125	7612207487909	4 m	125	NHS-32X125	7612207487930	4 m

Tube – standard. Black / Anthracite. Length: 2.0m

25 mm				32 mm			
Pipe Ø [mm]	Item	EAN	Content [metric]	Pipe Ø [mm]	Item	EAN	Content [metric]
-	-	-	-	140	NHS-32X140	7612207487947	4 m

Other information

Thickness tolerance	9 mm, 13 mm : ±1,5 mm 19 mm, 25 mm, 32 mm : ±2,5 mm
Length tolerance	±1,5%

Roll – standard. Black / Anthracite

Item	Insulation thickness [mm]	Length [m]	EAN	Content [metric]
NHS-03-99/E	3	30	7612207488081	30 m ²
NHS-06-99/E	6	15	7612207488654	15 m ²
NHS-10-99/E	10	10	7612207487961	10 m ²
NHS-13-99/E	13	8	7612207488227	8 m ²
NHS-19-99/E	19	6	7612207488463	6 m ²
NHS-25-99/E	25	4	7612207488609	4 m ²
NHS-32-99/E	32	3	7612207488623	3 m ²

Other information

Thickness tolerance	3 mm - 6 mm : ±1,0 mm 9 mm - 19 mm : ±1,5 mm 25 mm - 32 mm : ±2,0 mm
Width tolerance	1,5 % - +5%

Roll – standard self-adhesive. Black / Anthracite

Item	Insulation thickness [mm]	Length [m]	EAN	Content [metric]
NHS-03-99/EA	3	30	7612207488647	30 m ²
NHS-06-99/EA	6	15	7612207488661	15 m ²
NHS-10-99/EA	10	10	7612207487978	10 m ²
NHS-13-99/EA	13	8	7612207488234	8 m ²
NHS-19-99/EA	19	6	7612207488470	6 m ²
NHS-25-99/EA	25	4	7612207488616	4 m ²
NHS-32-99/EA	32	3	7612207488630	3 m ²

Other information

Thickness tolerance	3 mm - 6 mm : ±1,0 mm 9 mm - 19 mm : ±1,5 mm 25 mm - 32 mm : ±2,0 mm
Length tolerance	1,5 % - +5%

Tape – insulation. Black / Anthracite

Item	Thickness [mm]	Width [mm]	Length [m]	Content [quantity]
NHS-TAPE	3	50	15	12 roll

Adhesives and Cleaners

Item	Description	Content [quantity]
ADH750/0,5	ArmaFlex 750 Adhesive, 0.5 Litre	12 tin