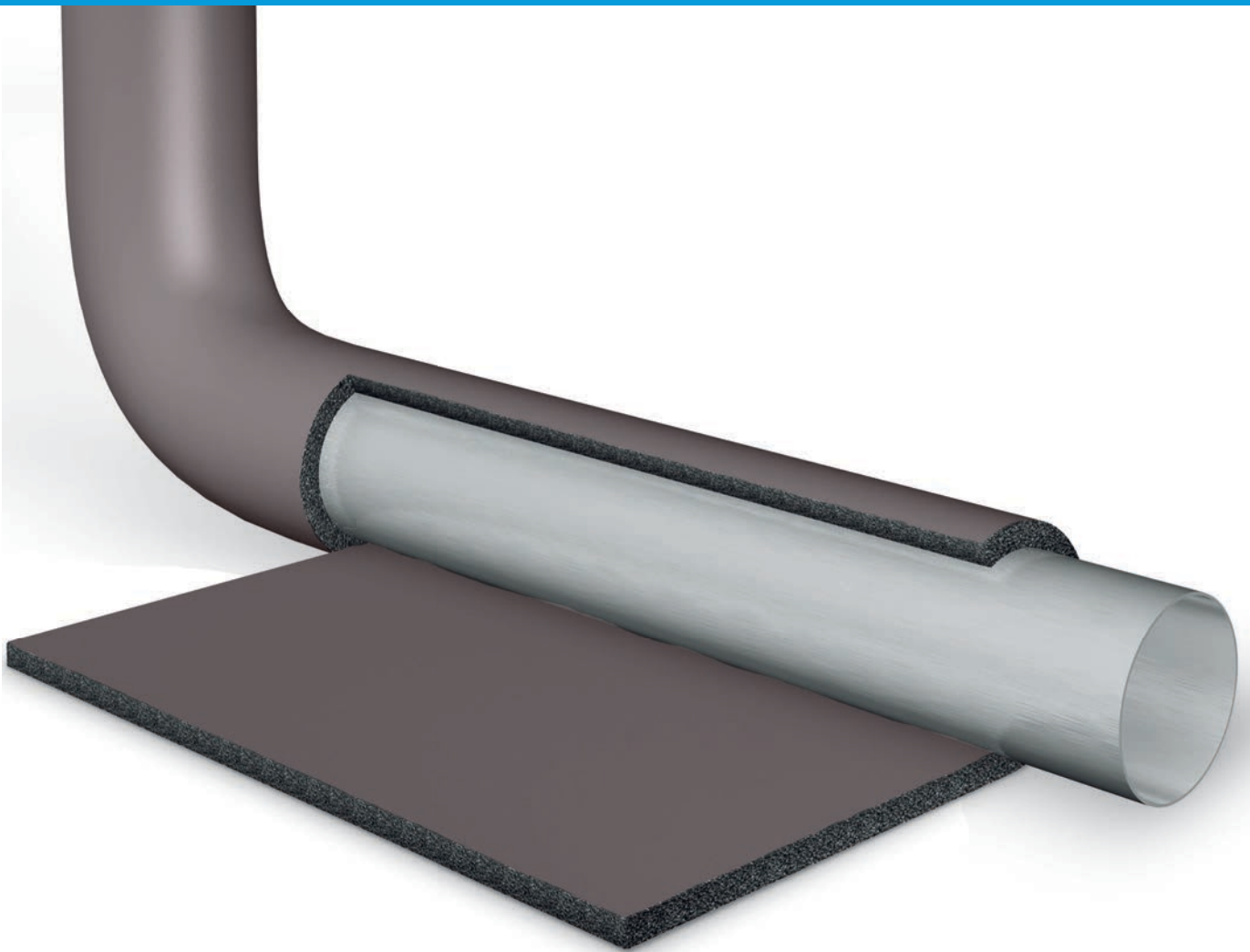# NH/ArmaFlex®

HALOGEN-FREE INSULATION WITH LOW SMOKE EMISSIONS

- Low amounts of smoke and acid gas in a fire

- Reduces toxicity and corrosive effects on people and equipment

- Prevents stress corrosion cracking of stainless steel

- Fibre dust free material with low thermal conductivities

- Excellent protection against water vapour diffusion

- IMO certified, UL and FM-approved

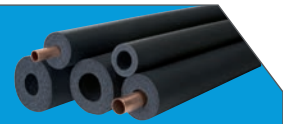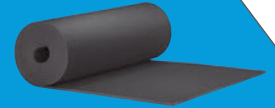- Self-adhesive tubes to comply with green building schemes

TUBE
Tubes, self-adhesive tubes (self-seal)

SHEET
Continuous sheet (rolls), self-adhesive continuous sheet (rolls)

TAPE
Self-adhesive tape

RECOMMENDED PRODUCTS
For a complete installation

ArmaFix NH pipe support

ArmaFlex RS850 adhesive

ArmaFlex SF Cleaner

TECHNICAL DATA

Halogen-free flexible closed-cell thermal insulation material. Certified for use in marine environments, rail and military sectors. Also suitable to use on clean and server rooms.

Material type	Elastomeric foam based synthetic rubber. Factory made elastomeric foam (*FEF) according to EN 14304
Colour	Dark Grey / Anthracite
Applications	Insulation / protection for air conditioning and refrigeration, ventilation and process equipment to prevent condensation and save energy on pipework, air ducts, vessels (incl. elbows, fittings, flanges etc.)
Special features	Zero halogens (chloride, bromide) acc. to DIN / VDE 0472, part 815. Fulfills DIN 1988 Parts 2 and 7
Safety & environment	ODP Zero, GWP Zero
Remarks	Declaration Of Performance (DOP) is available in accordance with Article 7(3) of regulation (EU) No 305/2011

Property	Value/Assessment	Test	Standards & Remarks
Temperature Range			
Max service temperature	+110˚C (+85˚C if sheet or tape is glued to the object with its whole surface)	EU 5664	Tested acc to EN 14706, EN 14707 & EN 14304
Min service temperature	-50˚C (for temperatures below -50 ˚C please contact our technical department)		
Thermal Conductivity			
	$\lambda\, 0˚C \leqslant 0.040$ W/(m·K) $[40+0.1 \cdot \vartheta_m + 0.0009 \cdot \vartheta_m^2]/1000$	EU 5664	Tested acc. to BS 874 Part 2 1986, EN12667 & EN ISO 8497
Water Vapour Diffusion Resistance			
	$\mu \geqslant 2,000$	EU 5664	Tested acc.to DIN 52 615, EN 12086 & EN 13469
Fire Performance			
Tubes	Euroclass D_L-s2, d0	EU 5157	Classified acc. to EN 13501-1 Tested acc. to EN 13823 & EN ISO 11925-2
Sheets & tapes	Euroclass E		
Reaction to fire	Class 1	GB 5905	Tested acc. to BS 476 Part 7:1997
Ship building: Bureau Veritas, Det Norske Veritas, Lloyds Register	Low flammability	D5555, D5348, EU 5475 & EU6111	ACC. to IMO A653 (16)
Railway sheets up to 25mm	S4 SR2 ST2	D 6666	acc. to DIN 54837 ISO 5659 (DIN 5510-2)
UL Approved	HF-1	D 5837	UL: acc. to UL94, IEC60695 & Can/CSA-C.22.2 No 0.17, UL 746C
Practicial fire behaviour	Self-extinguishing, does not drip & does not spread flames		
Other technical features			
Dimensions & tolerances	In accordance with EN 14304, table 1		Tested acc. to EN 822, EN 823 & EN 13467
Chemical behaviour	Resistant against commonly used building materials including concrete, lime, gypsum, cement		
Health apects	Dust and fibre free		
Storage & shelf life	Self-adhesive tapes Self-adhesive sheets Self-adhesive tubes	1 year	Stored in dry clean rooms at normal relative humidity (50% to 70%) and ambient temperature (0˚C - 35˚C)
Resistance to	Building materials: Very good Chemicals: Consult product test list Ozone: Very good		
Water absorption	0.2% by volume		Tested acc. to ASTM C 209
Environmental aspects	ODP zero, GWP zero	EU5197	

TUBES

Length - 2m, **Colour** - Dark Grey
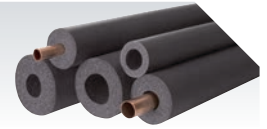
Pipe max. Outside - Ø (mm)	9mm INSULATION THICKNESS		13mm INSULATION THICKNESS	
	Code	m/carton	Code	m/carton
10	NH-09X10 •	266	NH-13X10 •	156
12	NH-09X12 •	200	NH-13X12 •	162
15	NH-09X15 •	192	NH-13X15 •	120
18	NH-09X18 •	166	NH-13X18 •	112
22	NH-09X22 •	136	NH-13X22 •	98
28	NH-09X28 •	98	NH-13X28 •	78
35	NH-09X35 •	76	NH-13X35 •	56
42	NH-09X42 •	60	NH-13X42 •	48
48	NH-09X48 •	50	NH-13X48 •	40
54			NH-13X54 •	34
60			NH-13X60 •	32
76			NH-13X76 •	22
89			NH-13X89 •	18

Pipe max. Outside - Ø (mm)	19mm INSULATION THICKNESS		25mm INSULATION THICKNESS	
	Code	m/carton	Code	m/carton
15	NH-19X15 •	78	NH-25X15 •	40
18	NH-19X18 •	60	NH-25X18 •	40
22	NH-19X22 •	56	NH-25X22 •	40
28	NH-19X28 •	48	NH-25X28 •	32
35	NH-19X35	36	NH-25X35 •	24
42	NH-19X42	32	NH-25X42 •	22
48	NH-19X48	24	NH-25X48 •	18
54	NH-19X54	24	NH-25X54 •	16
60	NH-19X60	18	NH-25X60 •	12
76	NH-19X76	12	NH-25X76 •	10
89	NH-19X89	12	NH-25X89 •	8
114	NH-19X114	8	NH-25X114 •	6

Other information and remarks		
Length tolerance for tubes	±1.5%	
Thickness tolerance for tubes	9-13mm	± 1.5mm
	19-25mm	± 2mm
• Not a stock item		

SELF-ADHESIVE TUBES (SELF-SEAL)

Length - 2m, **Colour** - Dark Grey

Pipe max. Outside - Ø (mm)	13mm INSULATION THICKNESS		19mm INSULATION THICKNESS	
	Code	m/carton	Code	m/carton
15	NH-13X015-A •	120	NH-19X015-A •	78
18	NH-13X018-A •	112	NH-19X018-A •	60
22	NH-13X022-A •	98	NH-19X022-A •	56
28	NH-13X028-A •	78	NH-19X028-A •	48
35	NH-13X035-A •	56	NH-19X035-A •	36
42	NH-13X042-A •	48	NH-19X042-A •	32
48	NH-13X048-A •	40	NH-19X048-A •	24
54	NH-13X054-A •	34	NH-19X054-A •	24
60	NH-13X060-A •	32	NH-19X060-A •	18
76			NH-19X076-A •	12
89			NH-19X089-A •	12

Other information and remarks			
Length tolerance for tubes	±1.5%		
Thickness tolerance for tubes	≤ 13mm	± 1.5mm	
	> 19mm	± 2.5mm	
• Not a stock item			

SHEET

Width - 1m, **Colour** - Dark Grey
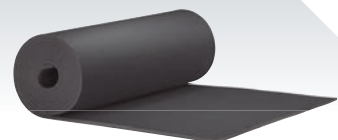
Code	Thickness (mm)	Roll Length (m)	m²/carton
NH-03-99/E	3	30	30
NH-06-99/E	6	15	15
NH-10-99/E	10	10	10
NH-13-99/E	13	8	8
NH-19-99/E	19	6	6
NH-25-99/E	25	4	4
NH-32-99/E	32	3	3

Other information and remarks			
Length tolerance for tubes	1.5% to ±5% -1.5%		
Thickness tolerance for tubes	3 - 6mm	± 1mm	
	10 - 19mm	± 1.5mm	
	25 - 32mm	± 2mm	

SELF-ADHESIVE SHEET (ROLLS)

Width - 1m, **Colour** - Dark Grey
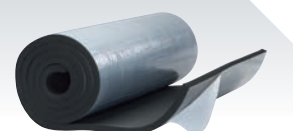
Code	Thickness (mm)	Roll Length (m)	m²/carton
NH-06-99/EA	6	15	15
NH-10-99/EA	10	10	10
NH-13-99/EA	13	8	8
NH-19-99/EA	19	6	6
NH-25-99/EA	25	4	4
NH-32-99/EA	32	3	3

TAPE

Colour - Dark Grey
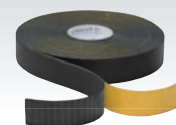
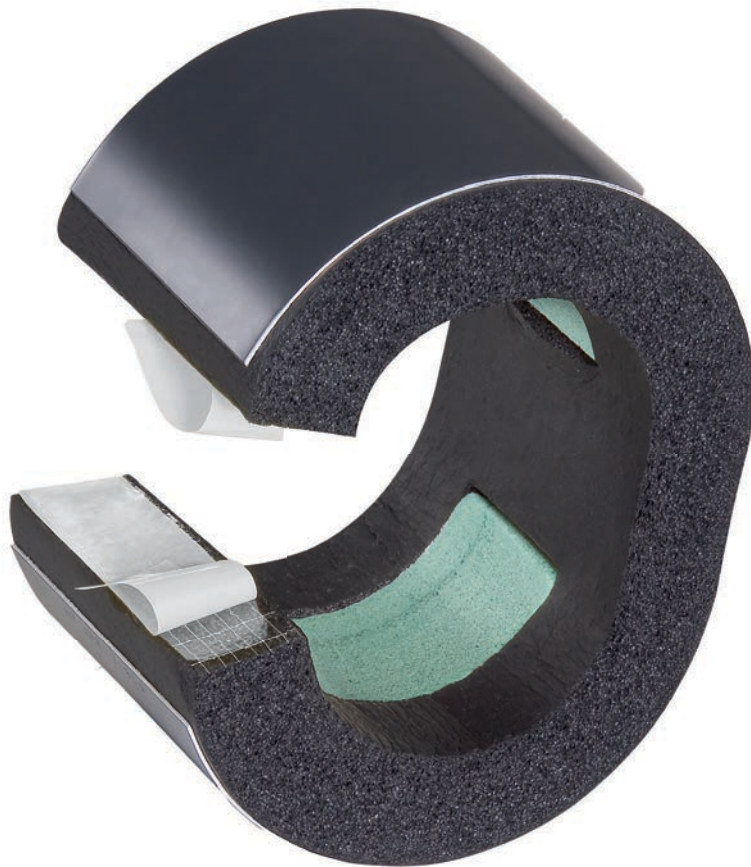| Code	Width (mm)	Roll Length (m)	Thickness (mm)	Rolls/carton
NH-TAPE	50	15	3	12

PROJECT

Kvaerner Masa shipyard
Helsinki, Finland

PRODUCTS USED

NH/ArmaFlex
ArmaFix NH

ArmaFix NH®

COMPATIBLE PIPE SUPPORTS FOR USE WITH NH/ARMAFLEX INSULATION

- Environmentally friendly PET core, with greater load capacity

- Increased fire safety thanks to non-halogen material

- Prevents thermal bridges and reduction of energy losses

- Very good mechanical resistance

- Compatible with NH/ArmaFlex tubes

PIPE SUPPORTS & CLAMPS

RECOMMENDED PRODUCTS

For a complete installation

ArmaFlex 520 adhesive
p. 227

ArmaFlex RS850 adhesive
p. 227

NH/ArmaFlex tubes
p. 73

Insulated pipe and duct supports to prevent condensation at fixing points on refrigeration and air conditioning installations. Single piece assembly with 2 ArmaFORM PET-foam sections and self-adhesive closure. All dimensions correspond to the NH/ArmaFlex tube range.

Material type	PET foam bearing segments, embedded in and glued to NH/ArmaFlex elastomeric foam material. Outside bearing shell made of painted 0.8mm thick aluminium sheeting, which simultaneously serves as a vapour barrier for the PET bearing segments.
Colour	Dark grey
Material information	Traces of silicone can be found on the protective film used on the self-adhesive closures. Please contact customer services for details.
Applications	Thermally non-interating mounting aid for tubes and sheet in referigeration and air-conditioning applications, which are to be insulated with NH/ArmaFlex.
Remarks	When used in applications with intermittent temperatures, thermal length extensions may cause inherent pressure in the installation; this needs to be considered in the overall insulation construction.

Property	Value/Assessment	Standards & Remarks
Temperature Range		
Max service temperature	+110˚C	
Min service temperature	-50˚C (for temperatures below -50 ˚C please contact our technical department)	
Thermal Conductivity		
	Same as NH/ArmaFlex elastomeric foam	Declared acc. to EN ISO 13787 Tested acc. to EN12667 & EN ISO 8497
Water Vapour Diffusion Resistance		
	Same as NH/ArmaFlex elastomeric foam	Tested acc.to EN 12086 & EN 13469
Fire Performance		
Reaction to fire	Same as NH/ArmaFlex **ENTIRE SYSTEM INSALLATION:** Installed with NH/ArmaFlex D_Ls2,d0	Classified acc. to EN 13501-1 Tested acc. to EN 13823 & EN ISO 11925-2
Practical fire behaviour	Self-extinguishing, does not drip & does not spread flames.	
Acoustic Performance		
Reduction of structure-borne sound transmission	According to insulation material used	According to DIN 4109
Other technical features		
Density	95 - 105 kg/m^3 (pipe bearing segments)	
Storage & shelf life	Products with self-adhesive closures to be installed within 1 year	

ArmaFix clamps	
Description	Pipe clamp with quick release closing and combination mounting nut
Material type	Steel with an electrolytic zinc coating to protect from corrosion.
Colour	Silver
Material information	Clamp supplied with combination nut for fixing to threaded rod.
Applications	For use alongside ArmaFlex insulation at pipe hanging points to eliminate thermal bridging on refrigeration and air-conditioning installations.
Fire Performance	The insulation layer does not affect the fire performance of the steel clamp
Screw connections	M8 / M10 combination nut
Tension screws	M6 / M8
Clamp	Width 20mm - 30mm, Thickness 1.5mm - 3mm

PIPE SUPPORTS AND CLAMPS

Pipe max. Outside - Ø (mm)	Max permissible distance (m)	13mm INSULATION THICKNESS		CLAMPS 13mm	
		Code	Pieces/carton	Code	Pieces/carton
10	2	PHN-13-10/12 •	32	PCX 025/030	25
12	2	PHN-13-10/12 •	32	PCX 025/030	25
15	2	PHN-13-15/18 •	32	PCX 033/037	25
18	2	PHN-13-15/18 •	32	PCX 033/037	25
22	2.75	PHN-13-22/25 •	32	PCX 042/046	25
25	2.75	PHN-13-22/25 •	32	PCX 042/046	25
28	3	PHN-13-28/30 •	32	PCX 047/052	25
30	3	PHN-13-28/30 •	32	PCX 047/052	25
32	3.5	PHN-13-32 •	28	PCX 047/052	25
35	3.5	PHN-13-35/38 •	28	PCX 054/058	25
38	3.5	PHN-13-35/38 •	28	PCX 054/058	25
40	3.75	PHN-13-40 •	28	PCX 059/063	25
42	3.75	PHN-13-42/45 •	28	PCX 063/068	25
45	3.75	PHN-13-42/45 •	28	PCX 063/068	25
48	4.25	PHN-13-48 •	28	PCX 068/073	10
54	4.25	PHN-13-54/57 •	28	PCX 068/073	10
57	4.25	PHN-13-54/57 •	28	PCX 068/073	10
60	4.75	PHN-13-60/64 •	24	PCX 082/085	10
64	4.75	PHN-13-60/64 •	24	PCX 082/085	10
76	5.50	PHN-13-76/80 •	20	PCX 092/099	10
80	5.50	PHN-13-76/80 •	20	PCX 092/099	10
89	6.00	PHN-13-89 •	16	PCX 108/112	10

Other information
• Not a stock item

Pipe max. Outside - Ø (mm)	Max permissible distance (m)	19mm INSULATION THICKNESS		CLAMPS 19mm	
		Code	Pieces/carton	Code	Pices/carton
10	2	PHN-19-10/12 •	28	PCX 038/041	25
12	2	PHN-19-10/12 •	28	PCX 038/041	25
15	2	PHN-19-15/18 •	28	PCX 047/052	25
18	2	PHN-19-15/18 •	28	PCX 047/052	25
22	2.75	PHN-19-22/25 •	28	PCX 054/058	25
25	2.75	PHN-19-22/25 •	28	PCX 054/058	25
28	3	PHN-19-28/30 •	28	PCX 059/063	25
30	3	PHN-19-28/30 •	28	PCX 059/063	25
32	3.5	PHN-19-32 •	28	PCX 059/063	25
35	3.5	PHN-19-35/38 •	24	PCX 063/068	25
38	3.5	PHN-19-35/38 •	24	PCX 063/068	25
42	3.75	PHN-19-42/45 •	24	PCX 068/073	10
45	3.75	PHN-19-42/45 •	24	PCX 068/073	10
48	4.25	PHN-19-48 •	24	PCX 072/080	10
54	4.25	PHN-19-54/57 •	24	PCX 082/085	10
57	4.25	PHN-19-54/57 •	24	PCX 082/085	10
60	4.75	PHN-19-60/64 •	20	PCX 088/092	10
64	4.75	PHN-19-60/64 •	20	PCX 088/092	10

Pipe max. Outside - Ø (mm)	Max permissible distance (m)	25mm INSULATION THICKNESS		CLAMPS 25mm	
		Code	Pieces/carton	Code	Pieces/carton
15	2	PHN-25-15/18 •	28	PCX 059/063	25
18	2	PHN-25-15/18 •	28	PCX 059/063	25
22	2.75	PHN-25-22/25 •	28	PCX 063/068	25
25	2.75	PHN-25-25/25 •	28	PCX 063/068	25
28	3	PHN-25-28/30 •	28	PCX 068/073	10
30	3	PHN-25-28/30 •	28	PCX 068/073	10
35	3.5	PHN-25-32 •	24	PCX 068/073	10
38	3.5	PHN-25-35/38 •	24	PCX 072/080	10
42	3.5	PHN-25-35/38 •	24	PCX 072/080	10
45	3.75	PHN-25-42/45 •	24	PCX 082/085	10
48	3.75	PHN-25-42/45 •	24	PCX 082/085	10
54	4.25	PHN-25-48 •	24	PCX 088/092	10
57	4.25	PHN-25-54/57 •	24	PCX 092/099	10
60	4.25	PHN-25-54/57 •	24	PCX 092/099	10
64	4.75	PHN-25-60/64 •	20	PCX 099/103	10
76	4.75	PHN-25-60/64 •	20	PCX 099/103	10
80	5.50	PHN-25-76/80 •	16	PCX 112/118	10
89	5.50	PHN-25-76/80 •	16	PCX 112/118	10

Other information
• Not a stock item

ArmaFlex® adhesives

A FULL RANGE OF OF CONTACT
ADHESIVES FOR COMPATIBILITY
WITH ALL TYPES OF ARMAFLEX

- **ArmaFlex RS850 & Ultima RS850**
  Non-drip for faster & cleaner applications. Ideal for hard
  to access areas with reduced solvent content to meet the
  requirements for sustainable building projects.
- **Armaflex 520 & Ultima 700**
  Tried & tested for superior ArmaFlex reliability

- **ArmaFlex HT 625**
  Specially formulated to perform at higher temperatures
  for HT/ArmaFlex products. Can also be used on all
  ArmaFlex materials, excluding ArmaFlex Ultima.

RS850

High viscosity non-drip thixotropic adhesives, ArmaFlex RS850 and ArmaFlex Ultima RS850 ensure faster and cleaner application. They offer a longer shelf life once stored and emit minimum emission of solvents when they are not being used.

NON-DRIP

SOLVENT FREE CLEANER

ArmaFlex SF Cleaner can be used to clean the surfaces of technical insulation materials and the application surface. It comes in a practical spray bottle.

HT625

HT625 is a one-component adhesive which has been developed to bond ArmaFlex insulation applied on high temperature lines. Compatible with HT/ArmaFlex, it guarantees a homogeneous and safe bonding at joins and seams

520

ArmaFlex 520 adhesive is a polychloroprene based solvent. The material has low viscosity for ease of application and quick drying characteristics. In its dry state, ArmaFlex 520 adhesive is not flammable. The adhesive is particularly suitable for joining ArmaFlex flexible elastomeric insulation and for bonding the material to clean surfaces. When properly cured the adhesive maintains the resistance to water vapour expected of ArmaFlex.

TECHNICAL DATA

Armaflex adhesives based on modified chloroprene rubber in a blend of solvents.

ARMAFLEX 520
Specially formulated adhesive developed for ArmaFlex insulation materials.

Material type	Contact adhesive on polychloroprene basis, free of aromatic components.
Colour	Beige
Material special info	Liquid
Applications	Gluing of all flexible ArmaFlex insulation materials (except HT/ArmaFlex & ArmaFlex Ultima).
Special features	Specially formulated adhesive for uniform and safe seam bonding of ArmaFlex insulation materials.
Assembly	Please observe our installation instructions/product data sheets. Application temperature: ideally +20˚C, not below 0˚C. At temperatures below +5˚C or high humidity approx above 80%), increased condensation may form on the surfaces to be glued or adhesive films. In these cases bonding is poor or impossible. This can be tested by using absorbent paper (blotting or crepe paper). Work should not be carried out on operating plant or areas exposed to strong sunlight. Shake and stir well before use. Apply thinly to the areas to be bonded with a brush or spatula. For contact adhesion press together with force during the contact adhesion time. Detailed application guidance is available.
Remarks	The adhesive achieves its final strength after 36 hours. Only then should plant be put into operation. Never insulate plant which is in operation or work in strong sunlight. Wait 36 hours before applying coatings (exception: ArmaFinish 99), adhesive tape, coverings etc.

ARMAFLEX RS850
Non-drip one component adhesive in gel form. Specifically developed for ArmaFlex insulation materials based on synthetic rubber.

Material type	Thixotropic contact adhesive on polychloroprene basis.
Colour	Beige
Material special info	Gel form
Applications	Application on pipes, ducts and tanks with service temperature up to +70˚C. Gluing of all flexible ArmaFlex insulation materials (except HT/ArmaFlex & ArmaFlex Ultima).
Special features	Specially formulated adhesive for uniform and safe seam bonding of ArmaFlex insulation materials.
Assembly	Please observe our installation instructions/product data sheets. Application temperature: ideally +20˚C, not below 0˚C. At temperatures below +5˚C or high humidity approx above 80%), increased condensation may form on the surfaces to be glued or adhesive films. In these cases bonding is poor or impossible. This can be tested by using absorbent paper (blotting or crepe paper). Work should not be carried out on operating plant or areas exposed to strong sunlight. Shake and stir well before use. Apply thinly to the areas to be bonded with a brush or spatula. For contact adhesion press together with force during the contact adhesion time. Detailed application guidance is avalable.
Remarks	The adhesive achieves its final strength after 24 hours. The system should never be operated during this time and any self-adhesive tape or protective coating (exception: ArmaFinish 99), should only be applied after the time has elapsed.

	ArmaFlex 520 adhesive	ArmaFlex RS850 adhesive
Temperature Range		
Max service temperature	+105˚C	+70˚C
Min service temperature	-50˚C (for temperatures below -50 ˚C please contact our technical department)	-40˚C
Performance		
Coverage (guidance only)	Minimum consumption with the adhesive applied to both surfaces: ArmaFlex tubes (thickness > consumption unslit > consumption slit) • 10mm > 1,120m per litre > 140m per litre • 20mm > 280m per litre > 70m per litre • 30mm > 175m per litre > 45m per litre • 40mm > 130m per litre > 35m per litre Sheets • 3-4 m^2 per litre	
Storage & shelf life		
	12 months Store as cool as possible but protected from frost. In the event of frost any gelification is reversible on warming	36 months in an unopened container. Store between 0˚C and 35˚C in a dry place. Do not store with explosive substances or spontaneosly combusting substances. Store as cool as possible but protected from frost. Cold or frozen adhesive (under 5˚C) will become fully useable if slowly acclimatised up to working temperature (approx 20˚C)
Preparation of surfaces		
	Clean surfaces and ArmaFlex Ultima surface with Armaflex Cleaner. Compatibility with bases: • Very good adhesion to metallic sufaces. • The adhesive's compatibility with colour coated sufaces needs to be tested. • Incompatible with asphalt, bitumen and red lead (linseed oil-based)	Clean surfaces and ArmaFlex Ultima surface with Armaflex Cleaner. Compatibility with bases: • Very good adhesion to metallic surfaces. • The adhesive's compatibility with colour coated surfaces needs to be tested. • Incompatible with asphalt, bitumen, red lead (linseed oil-based), polystyrene and plasticated PVC
Woking time at 20 ˚C		
Wet adhesion time	Up to 2 minutes	
Drying time	3- 5 mins	2 min
Contact adhesion	15 - 20 mins	10 - 15 mins
Setting	36 hours	24 hours
The open time depends on the quantity as well as indoor climate conditions. Before operating plant the setting time needs to be allowed to elapse.		
Other technical features		
Flash point	approx -20 ˚C	-17˚C
Explosion limits	Lower: approx 1 Vol % Upper: approx 13 Vol %	Lower: approx 1.1 Vol % Upper: approx 11.5 Vol %
Hazard class	Highly flammable, Regulation of inflammable liquids.	
Ageing stability	Very good	
Resistance to weathering	Very good	
Recycling	Allocation of a waste code number, according to the European Waste Catalouge, should be carried out in agreement with the regional waste disposal company. For details see relevant Safety Data Sheet. Packaging must be emptied of all residues. Packaging with traces of cured product can be recycled. Packaging with uncured product must be recycled into new product.	
Transport classes	Depending on the type of transport	

TECHNICAL DATA

ARMAFLEX HT625

One-component adhesive for high temperature applications, specifically developed for HT/ArmaFlex insulations but also suitable for all ArmaFlex synthetic rubber based insulation materials.

Material type	Contact adhesive on polychloroprene basis, free of aromatic components.
Colour	Beige
Material special info	Liquid
Applications	Application on pipes and tanks with service temperature up to +150˚C. Gluing of HT/ArmaFlex insulation materials and other Armaflex synthetic rubber based insulation materials (except Armaflex Ultima).
Special features	Specially formulated adhesive for uniform and safe seam bonding of ArmaFlex insulation materials applied on high temperature lines.
Assembly	Please observe our installation instructions/product data sheets. Application temperature: ideally +20˚C, not below 0˚C. At temperatures below +5˚C or high humidity approx above 80%), increased condensation may form on the surfaces to be glued or adhesive films. In these cases bonding is poor or impossible. This can be tested by using absorbent paper (blotting or crepe paper). Work should not be carried out on operating plant or areas exposed to strong sunlight.
Remarks	The adhesive achieves its final strength after 36 hours. Only then should plant be put into operation. Wait 36 hours before applying coatings (exception: ArmaFinish 99), adhesive tape, coverings etc.

Temperature Range	
Max service temperature	+150˚C (For temperatures above +110˚C please contact our technical department)
Min service temperature	-50˚C (For temperatures below -50 ˚C please contact our technical department)

Performance	
Coverage (guidance only)	Minimum consumption with the adhesive applied to both surfaces: ArmaFlex tubes (thickness > consumption unslit > consumption slit) • 10mm > 1120m per litre > 140m per litre • 20mm > 280m per litre > 70m per litre • 30mm > 175m per litre > 45m per litre • 40mm > 130m per litre > 35m per litre Sheets • 3-4 m² per litre

Storage & shelf life

12 months in an unopened container. Do not store with expolsive substances / spontaneously combusting substances. Store as cool as possible but protected from frost. In the event of frost any gelification is reversible on warming

Preparation of surfaces

Clean surfaces and ArmaFlex surface with ArmaFlex Cleaner. Compatibility with bases:
• Very good adhesion to metallic sufaces.
• The adhesive's compatibility with colour coated sufaces needs to be tested.
• Incompatible with Asphalt, bitumen and red lead (linseed oil-based)

Woking time	
Drying time	3- 5 mins
Contact adhesion	15 - 20 mins
Setting	36 hours

The open time depends on the quantity as well as indoor climate conditions. Before operating plant the setting time needs to be allowed to lapse.

Other technical features	
Flash point	approx -26 ˚C
Expolsion limits	Lower: approx 1.1 Vol %; Upper: approx 12.8 Vol %
Hazard class	Highly flammable
Ageing stability	Very good
Resistance to weathering	Very good
Recycling	Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company. For deatils see relevant Safety Data Sheet. Packaging must be emptied of all residues. Packaging with traces of cured product can be recycled. Packaging with uncured product must be recycled into new product.
Transport classes	Depending on the type of transport

TECHNICAL DATA

ARMAFLEX ULTIMA 700
One-component adhesive specifically developed for ArmaFlex Ultima and insulating materials based on Armaprene® synthetic rubbers.

Material type	Contact adhesive on polychloroprene basis, free of aromatic components.
Colour	Blue
Applications	Application on pipes and tanks with service temperature up to +110˚C. Gluing of ArmaFlex Ultima and insulation materials based on Armaprene® synthetic rubbers.
Assembly	Please observe our installation instructions/product data sheets. Application temperature: ideally +15˚C to +20˚C, not below 0˚C. At temperatures below +5˚C or high humidity approx above 80%), increased condensation may form on the surfaces to be glued or adhesive films. In these cases bonding is poor or impossible. This can be tested by using absorbent paper (blotting or crepe paper). Work should not be carried out on operating plant or areas exposed to strong sunlight.
Remarks	The adhesive achieves its final strength after 36 hours. Only then should plant be put into operation. Wait 36 hours before applying coatings (exception: Armafinish 99), adhesive tape, coverings etc.

ARMAFLEX ULTIMA RS850
Non-drip one component adhesive gel form. Specifically designed for processing ArmaFlex and insulating materials based on Armaprene® synthetic rubbers

Material type	Thixotropic one component contact adhesive based on polychloroprene.
Colour	Blue
Material special information	Gel based
Applications	Application on pipes and tanks with service temperature up to +70˚C. Gluing of ArmaFlex Ultima and insulation materials based on Armaprene® synthetic rubbers.
Assembly	Please observe our installation instructions/product data sheets. Application temperature: ideally +15˚C to +20˚C, not below +10˚C. At temperatures below +5˚C or high humidity approx above 80%), increased condensation may form on the surfaces to be glued or adhesive films. In these cases bonding is bad or impossible. This can be tested by using absorbent paper (blotting or crepe paper). Work should not be carried out on operating plant or areas exposed to strong sunlight.
Remarks	The adhesive achieves its final strength after 24 hours. The system should not be operated during this period and any self-adhesive tape or protective coatings should only be applied after this period has elapsed.

	ULTIMA 700	ULTIMA RS850
Temperature Range		
Max service temperature	+110˚C (for temperatures above +110˚C please contact our technical department)	+70˚C
Min service temperature	-50˚C (for temperatures below -50 ˚C please contact our technical department)	-40˚C (for temperatures below -40 ˚C please contact our technical department)
Performance		
Coverage (guidance only)	Minimum consumption with the adhesive applied to both surfaces: ArmaFlex tubes (thickness > consumption unslit > consumption slit) • 10mm > 1,120m per litre > 140m per litre • 20mm > 280m per litre > 70m per litre • 30mm > 175m per litre > 45m per litre • 40mm > 130m per litre > 35m per litre Sheets • 3-4 m^2 per litre	
Storage & shelf life		
	12 months in an unopened container. Store as cool as possible but protected from frost. In the event of frost any gelification is reversible on warming	18 months in an unopened container. Store between 0˚C and 35˚C in a dry place. Do not store with explosive substances or spontaneously combusting substances. In the event of frost any gelling is reversible on warming
Preparation of surfaces		
	Clean surfaces and ArmaFlex Ultima surface with ArmaFlex Cleaner. Compatibility with bases: • Very good adhesion to metallic sufaces. • The adhesive's compatibility with colour coated sufaces needs to be tested. • Incompatible with asphalt, bitumen and red lead (linseed oil-based)	Clean surfaces and ArmaFlex Ultima surface with ArmaFlex Cleaner. Compatibility with bases: • Very good adhesion to metallic surfaces. • The adhesive's compatibility with colour coated sufaces needs to be tested. • Incompatible with asphalt, bitumen, red lead (linseed oil-based), polystyrene and plasticated PVC
Working time		
Drying time	3- 5 mins	2 min
Contact adhesion	15 - 20 mins	10 - 15 mins
Setting	36 hours	24 hours
The open time depends on the quantity as well as indoor climate conditions. Before operating plant the setting time needs to be allowed to elapse.		
Other technical features		
Flash point	approx -26 ˚C	
Expolsion limits	Lower: approx 1.1 Vol % Upper: approx 12.8 Vol %	
Hazard class	Highly flammable	
Ageing stability	Very good	
Resistance to weathering	Very good	
Recycling	Allocation of a waste code number, according to the European Waste Catalouge, should be carried out in agreement with the regional waste disposal company. For details see relevant Safety Data Sheet. Packaging must be emptied of all residues. Packaging with traces of cured product can be recycled. Packaging with uncured product must be recycled into new product.	
Transport classes	Depending on the type of transport	

ARMAFLEX RS850

Code	Description	Pieces/carton	£/pc
ADH-RS850/0.5	ArmaFlex RS850 0.5 Litre can	6	25.44

ARMAFLEX 520

Code	Description	Pieces/carton	£/pc
ADH-520/0.25E	ArmaFlex 520 0.25 Litre can with brush	24	8.82
ADH-520/0.5E	ArmaFlex 520 0.5 Litre can	12	15.20
ADH-520/1.0E	ArmaFlex 520 1.0 Litre can	12	25.67
ADH-520/2.5E	ArmaFlex 520 2.5 Litre can	8	64.19

ARMAFLEX ULTIMA 700

Code	Description	Pices/carton	£/pc
AHU-700/1.0	ArmaFlex Ultima 700 Adhesive, 1 Litre cans	12	37.17

ARMAFLEX ULTIMA RS850

Code	Description	Pices/carton	£/pc
AHU-RS850/0.5	ArmaFlex Ultima RS850 Adhesive, 0.75 Litre cans	6	35.61

ARMAFLEX HT625 ADHESIVE

Code	Description	Pices/carton
ADH-HT625/0.25	ArmaFlex HT625 one component adhesive, 0.25 Litre can, with brush	40
ADH-HT625/0.5	ArmaFlex HT625 one component adhesive, 0.5 Litre can, with brush	12
ADH-HT625/1.0	ArmaFlex HT625 one component adhesive, 1 Litre can, with brush	12

ArmaFlex® accessories

ARMAFLEX TOOLS FOR THE PROFESSIONALS!

When it comes to preventing condensation and energy losses on equipment, not only high-quality insulation material is crucial, but also the installation.

ArmaFlex insulation materials not only have the required technical properties, they can also be installed quickly and easily. Armacell already offers various tools and aids such as the ArmaFlex Application Manual and installation videos.

Now all the tools and aids are available in a lightweight, robust, lockable aluminium case!

PROPERTIES

ARMAFINISH 99

THE ELASTIC PAINT DESIGNED FOR PROTECTION & COVERING OF ARMAFLEX

- **Resistant to weathering and ageing**
- **Coating remains elastic**
- **Drip-free paint**
- **Specially developed for covering Armaflex®**
- **Protection of Armaflex® insulation materials**

ArmaFinish 99 is a water-based coating using an advanced terpolymer resin system. When properly applied the coating is suitable for the protection of ArmaFlex flexible thermal insulation materials against sunlight, UV radiation and chemical attack. The coating, when fully cured, maintains the flexibility, resistance to water vapour and fire performance of ArmaFlex material. Where resistance to damage is a particular requirement, the coating may be further strengthened using a mesh glass fibre scrim.

ARMAFLEX SF CLEANER
Solvent free cleaner

ArmaFlex SF Cleaner can be used to clean the dirty surfaces of technical installations as well as the surfaces of insulating materials. It comes with a very practical spray bottle.

ARMAFLEX CLEANER

SURFACE CLEANER PREPARATION FOR ARMAFLEX® INSTALLATIONS

- **Ensures a clean surface before the use of ArmaFlex® Adhesives**
- **Removal of dirt from surfaces**
- **Cleaning of brushes and tools contaminated with ArmaFlex® adhesive**

ArmaFlex cleaner is a clear, colourless liquid. It is used for the removal of grease oils and dirt from surfaces prior to the use of ArmaFlex adhesives or ArmaFinish 99 paint. The cleaner may also be used to clean ArmaFlex adhesive from tools and brushes.

TECHNICAL DATA

	ARMAFLEX SF Cleaner Water-soluble cleaner	ARMAFLEX Cleaner Special cleaner for use with all ArmaFlex adhesives
Colour	Beige	Clear
Material special info	Liquid	Liquid
Applications	Cleaning of surfaces where ArmaFlex is to be installed.	Cleaning of surfaces where ArmaFlex is to be installed.
Assembly	To ensure a perfect adhesion all contaminated sufaces, including ArmaFlex, must be cleaned.	To ensure a perfect adhesion all contaminated sufaces, including ArmaFlex, must be cleaned. In addition the cleaner can be used to sufaces where ArmaFinish 99 is being applied.
Remarks	ArmaFlex SF cleaner to be spayed onto areas that require cleaning and allowed to settle (time depending on the amount of dirt) before washing off.	Can also be used to clean tools.
Storage & shelf life	12 months sealed in original container. Keep container tightly closed in a cool, well ventilated place. Protect from frost and do not store below +5 ˚C.	12 months sealed in original container. Keep container tightly closed in a cool, well ventilated place. Protect from heat & direct sunlight. Do not store together with explosive substances or spontaneously combusting subtances.
Preparation of surfaces	Clean surfaces and ArmaFlex surface with ArmaFlex Cleaner. Compatibility with bases: • Very good adhesion to metallic sufaces. • The adhesive's compatibility with colour coated sufaces needs to be tested. • Incompatible with asphalt, bitumen and red lead (linseed oil-based)	
Flash point	>100 ˚C	approx -20 ˚C
Explosion limits		Lower: approx 1% Vol, Upper: approx 13 % Vol. Regulation of inflammable liquids.
Recycling	Dispose of waste according to applicable legislation, for more details see the relevant safety data sheets.	Allocation of a waste code number, according to the European Waste Catalouge, should be carried out in agreement with the regional waste disposal company. For details see relevant Safety Data Sheet. Packaging must be emptied of all residues. Cans must be emptied prior to recycling. Cans containing adhesive must be recycled into new product.
Transport classes	Non hazardous material as defined by the transport regulations.	Dependent on the transport sector

ARMAFINISH 99	
UV resistant paint that remains permanently elastic, resistant to weathering and with good ageing resistance.	
Colour	Black, White (RAL 9001) OR GREY (RAL 7037)
Material type	Non-drip
Material special info	Normal consumption: 0.55 Litres per M^2 when two coats applied (corresponds to a dry film thickness of 0.26mm)
Applications	Protection of ArmaFlex insulation materials when installed outdoors and for marking purposes when used indoors.
Assembly	ArmaFlex insulation (except HT/ArmaFlex & ArmaFlex Ultima, see product data sheets) installed outdoors, should be covered with two coats. Application temperature: +10˚C to +30 ˚C, Drying time: 2 hours (+20 ˚C), Max relative humidity: 80%. It's necessary to allow 2 hours between each coat and the second coat must be applied within 7 days. The paint may be applied with a brush or roller and tools cleaned with with water or ArmaFlex cleaner.
Remarks	Unprotected ArmaFlex must not be exposed to weathering for more than 3 days and ArmaFinish 99 paint should be applied as soon as possible. The protective coating should be inspected at regular intervals. After 2 years at the latest a further two coats should be applied.
Storage & shelf life	12 months in unopened container. Once open keep container tightly closed in a cool, well ventilated place and potect from frost.
Explosion limits	None
Recycling	Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company. For details see relevant Safety Data Sheet. Cans must be emptied prior to recycling. Cans containing adhesive must be recycled into new product.

ARMAFLEX CLEANER

Code	Description	Pices/carton
CLEANER/1.0	Special cleaner for use with ArmaFlex Adhesive	4
SF-CLEANER/1.0	Solvent free cleaner for use with ArmaFlex Adhesive	6

ARMAFINISH 99 PAINT

Code	Description	Pices/carton
FINISH/BK-2.5	Protective paint for ArmaFlex, black, 2.5 Litres	4
FINISH/WH-2.5	Protective paint for ArmaFlex, White, 2.5 Litres	4
FINISH/GY-2.5	Protective paint for ArmaFlex, grey, 2.5 Litres	4

TAPE
Colour - Black , Microban®

Code	Description	Colour	Width (mm)	Length (m)	Thickness (mm)	Rolls/carton
AF-TAPE-MC	AF/ArmaFlex tape	Black	50	15	3	12
HT-TAPE	HT/ArmaFlex tape	Black	50	15	3	12
NH-TAPE	NH/ArmaFlex tape	Dark Grey	50	15	3	12
UD-TAPE	ArmaFlex Ultima tape	Blue	50	15	3	12
ACH-PSATAPES-30	Arma-Chek Silver tape	Silver	30	25	0.08	10
ACH-PSATAPES-50	Arma-Chek Silver tape	Silver	50	50	0.08	6
ACH-TAPED2025 •	Arma-Chek D tape	Dark Grey	20	25	0.18	12
ACH-TAPED5050 •	Arma-Chek D tape	Dark Grey	50	50	0.18	6
ACH-TAPED10025 •	Arma-Chek D tape	Dark Grey	100	25	0.18	3

MASTICS

Code	Description	Pieces/carton
ACH-MASTICSD	Mastic black. Sealing compound for installing Arma-Chek outdoors, 290 ml	12
ACH-MASTICS	Sealing compound for installing Arma-Chek R, Cartridge 290 ml	12

TOOLS

Code	Description	Pices/carton
BLADES	Spare blades for tube slitter-knife (50x6 pcs)	50x6
BLADES-PCS	Spare blades for tube slitter-knife (6 pcs)	6
CERAMIC KNIFE	Knife with ceramic blade (10 cm) and rubber grip (9 cm)	1
CUTTING-SET	ArmaFlex knife-set (3 knives + 1 sharpening stone)	1
GLUEM-BRUSH11MM	Gluemaster extra brush points with cap (11mm diameter)	5x4
GLUEM-BRUSH17MM	Gluemaster extra brush points with cap (17mm diameter)	5x4
GLUEMASTER B	ArmaFlex Gluemaster (adhesive pump)	12
SLITTER	Special tube slitter-knife	10

TOOLBOX

Length - 570mm, Width - 325mm, Thickness - 160mm, Aluminium toolbox

Code	Description	Pices/carton
TOOLBOX	Case containing tools to install ArmaFlex	1

TOOLS FOR THE PROFESSIONALS

ARMAFLEX TOOLBOX

All the tools and aids required to install ArmaFlex professionally in a lightweight, yet robust, aluminium case. With all the high-quality tools for measuring, cutting and gluing elastomeric insulation materials insulators, are well-equipped for all fields of application.

MEASURING CORRECTLY

- **ArmaFlex Application Manual**
- **Folding rule with circumference scale**
- **Callipers (300 mm) to determine diameters precisely**
- **Edding & silver-ink marker & ballpoint pen**
- **Bow compass with holder**

CUT PERFECTLY

- **ArmaFlex template**
- **4 knives: with blade length of 9, 17, 27 cm & 1 ceramic knife**
- **Knife holster**
- **Sharpening stone**
- **Copper pipe ends (6 different diameters)**
- **Sharpening tool for copper pipe ends**

GLUE NEATLY

- **ArmaFlex short-bristle brushes 14, 70mm flat brush**
- **ArmaFlex gluemaster (adhesive pump)**
- **Cleaning cloth for tools**

Armaflex Toolbox
Install it. Trust it.

armacell®

Pipe Diameter chart

COPPER PIPES

STEEL PIPES

PLASTIC PIPES

Insulation bore size (mm)	COPPER PIPE		STEEL PIPE			PASTIC PIPE
	OD (mm)	OD (inch)	Nominal Ø (DN)	OD (mm)	OD (inch)	OD (mm)
6	6	1/4				6
10	10	3/8	6	10.2	1/8	10
12	12	1/2				12
15	15	5/8	8	13.5	1/4	
18	18	3/4	10	17.2	3/8	16
20	19	3/4				20
22	22	7/8	15	21.3	1/2	
28	28	1 1/8	20	26.9	3/4	25
35	35	1 3/8	25	33.7	1	
42	42	1 5/8	32	42.4	1 1/4	40
48	48	1 7/8	40	48.3	1 1/2	
54	54	2 1/8				50
60	60	2 5/8	50	60.3	2	
67	67	2 5/8				63
76	76	3	65	76.1	2 1/2	75
80	80	3 1/8				
89	89	3 1/2	80	88.9	3	
93	92	3 5/8				90
108	108	4 1/4				
114	114	4 1/2	100	114.3	4	110
Sheet required						125
	133					
			125	139.7	5	140
	159					160
			150	168.3	6	
						180
	219		200	219.1	8	
						225
						250
	267					
			250	273	10	
						280
						315
			300	329.9	12	
			350	355.6	14	355
			400	406.4	16	400
			450	457	18	
			500	508	20	
			600	610	24	

UK & Ireland team

Always at your service

STEVE STURCH
UK Sales & Marketing Manager
e: stephen.sturch@armacell.com
t. 07914 826 106

DEREK HOOD
UK Business Manager
e: derek.hood@armacell.com
t. 07768 068 547

JOHN BRADLEY
Regional Sales Manager
e: john.bradley@armacell.com
t. 07768 068 549

JAY DAVEY
Regional Sales Manager
e: jay.davey@armacell.com
t. 07768 068 546

GER COYNE
Ireland Sales agent
e: gmpcoyne@eircom.net
t. +353 872 580597
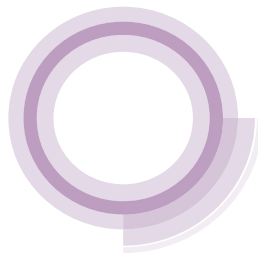
McCAIG COLLIM LTD
Northern Ireland Sales Agent
e: sales@mccaig-collim.co.uk
t: 028 9077 7788

JASON JEENES
Application Specialist
e: jason.jeenes@armacell.com
t. 07590 444 711

TOM MERTON
Technical Specialist
e: tom.merton@armacell.com
t: 0161 287 7038

CUSTOMER SERVICES TEAM

CLARE OLDHAM
Customer Services Manager
t: 0161 287 7106
e: clare.oldham@armacell.com

JONATHAN GRAY
Customer Services Team Leader
t: 0161 287 7153
e: jonathan.gray@armacell.com

JOANNE DALEY
Customer Services Coordinator - North & Ireland
t: 0161 287 7016
e: joanne.daley@armacell.com

EMMA ROBERTS-LOMAS
Customer Services Coordinator - Central
t:0161 287 7103
e: emma.roberts-lomas@armacell.com

KATHY SALT
Customer Services Coordinator - South
t: 0161 287 7102
e: kathy.salt@armacell.com

GEORGINA NUTTALL
Customer Services Coordinator
t: 0161 287 7101
e: georgina.nuttall@armacell.com

armacell®
MAKING A DIFFERENCE AROUND THE WORLD