

INSULATION
JUST GOT BETTER

ArmaFlex[®] Ultima ACR

Pre-fabricated combined
insulation system made up of
ArmaFlex Ultima & Arma-Chek R

- // Closed cell flexible elastomeric foam with unique fire reaction properties and minimal smoke emission
- // Factory applied flexible and resilient elastomeric covering
- // Specially developed for use in offshore and industrial environments
- // Mitigates the risk of corrosion under insulation (CUI)
- // In-build water vapour barrier

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 **armacell**[®]
ArmaFlex[®]

TECHNICAL DATA – ARMAFLEX ULTIMA ACR

Brief description	Flexible Elastomeric Foam on basis of patented synthetic rubber composition, factory precovered with a flexible EPDM rubber covering. Especially developed for use in offshore and industrial environments.
Material type	Insulation: ArmaFlex® Ultima Flexible Elastomeric Foam, based in ArmaPrene®. Covering: Arma-Chek® R flexible EPDM rubber with Chlorosulphonated Monomer (CSM), also known as CSPE.
Colour	Insulation: Blue. Covering: Grey.
Applications	Thermal insulation system for pipework, fittings, vessels and equipment in the offshore, heavy-industry, chemical and petrochemical environments.
Special features	Pre-covered system of insulation and mechanical protection for faster product installation.
Assembly	All Arma-Chek joints should be secured with Arma-Chek® Mastic. Please contact our Technical Services. The ArmaFlex® Ultima ACR, ArmaFlex® and Arma-Chek® R installation manuals should be consulted before installation.
Remarks	For more technical informations, please refer the technical data sheet of the products separately: ArmaFlex® Ultima and Arma-Chek® R.

Property	Value/Assessment		Special Remark
	Armaflex Ultima	Arma-Chek R	
Temperature range¹			
Max. service temperature	+110 °C (+230 °F)	+100 °C (+212 °F)	Based on thermal ageing behavior
Min. service temperature	-50 °C (-58°F)	-50 °C (-58 °F)	
Thermal conductivity			
Declared thermal conductivity	$\lambda_d \leq 0.040 \text{ W/(m}\cdot\text{K)}$ at 0 °C		Declared according to EN ISO 13787
Water vapor transmission			
Water vapour diffusion resistance factor	$\mu \geq 7,000$	$\mu \geq 50,000$	Tested according to EN 12086
Fire Performance			
Reaction to fire	B _L -s1,d0 B-s2,d0	B-s3,d0	Classified according to EN 13501-1
Flame spread	Pass	Pass	IMO Part 5
Smoke and toxicity	Pass	Pass	IMO Part 2
Approvals	BV, DNV	DNV	IMO 2010 FTP Code
Mechanical properties			
Tear strength ²		$\geq 7.0 \text{ N/mm}$	ISO 34-1
Tensile strength		$\geq 4.5 \text{ MPa}$	ISO 37
Elongation		$\geq 200\%$	ISO 37
Other technical features			
Weather resistance		Excellent	Assessed according to Allunga Exposure Lab.
UV resistance		Excellent	EN ISO 4892-2
Application conditions ³	Application temperature ⁴ : +5 °C to +35 °C Max. relative humidity: 80%		
Shelf (storage) life	1 year [self-adhesive material]		
Storage	Material shall be stored indoors, in clean and dry conditions, away from direct sunlight and in no direct contact with ground. Cartons must be stored horizontally as indicated in the box.		

- For temperatures below or above those published please contact Technical Services to request for the corresponding technical information.
- Minimum value in Machine Direction (MD) and in Cross Direction (CD). Method B, procedure (b), angle test piece with a nick.
- For environmental conditions outside the given range, please contact Technical Services.
- Application temperature (temperature of installation) refers to the ambient temperature during application and the surface temperature of the substrate to which the product is installed.

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Tubes Armaflex Ultima ACR (with factory applied covering)

Steel pipe*

Nominal pipe size NPS	Nominal diameter DN	Outside diameter OD*	Inner diameter of insulation tube min/max	Nominal length of insulation tube	Nominal insulation thickness 19 mm	
[inch]	[mm]	[mm]	[mm]	[m]	Item	m/carton
¼	8	15	16.5 - 18.0	1.36	UACR-19X015	24.48
⅜	10	18	19.5 - 21.0	1.36	UACR-19X018	24.48
½	15	22	23.5 - 25.0	1.36	UACR-19X022	21.76
¾	20	28	39.5 - 31.5	1.36	UACR-19X028	19.04
1	25	35	36.5 - 38.5	1.36	UACR-19X035	19.04
1¼	32	42.4	44.0 - 46.0	1.36	UACR-19X042	16.32
1½	40	48.3	50.0 - 52.0	1.36	UACR-19X048	16.32
---	---	54	56.0 - 58.0	1.36	UACR-19X054	13.60
2	50	60.3	62.0 - 64.0	1.36	UACR-19X060	10.88
---	---	64	64.0 - 66.0	1.36	UACR-19X064	10.88
2½	65	76.1	78.0 - 80.0	1.36	UACR-19X076	10.88
3	80	89	91.0 - 94.0	1.36	UACR-19X089	8.16

Tolerances for tubes
According to EN 14304

Thickness tolerances	19 mm nominal thickness	± 2.5 mm
Inner diameter tolerances		see min/max. in the table above
Length tolerance		± 1.5 mm

* In accordance with European standards for steel pipes with the exception of Outside Diameter 54 for copper pipe. For further dimensions please contact our Customer Service Centre.

Sheets Armaflex Ultima (no covering)

Item	Nominal thickness	Nominal width	Nominal length	Carton content
	[mm]	[m]	[m]	m ²
UD-19-99/E	19.0	1.0	5	5
UD-25-99/E	25.0	1.0	4	4
UD-32-99/E	32.0	1.0	3	3

Tolerances for sheets
According to EN 14304

Thickness tolerances	19 mm nominal thickness 25 - 32 mm nominal thickness	± 1.5 mm ± 2 mm
Width tolerances		± 2 %
Length tolerances		± 1.5 %

Rolls Arma-Chek R (covering only)

Item	Nominal Thickness [mm]	Nominal Roll Length [m]	Nominal Roll Width [m]	m ² /carton
RCS-R10/1-14-GY	1.0	10	1.4	14
RCS-R10/1-07-GY	1.0	10	0.7	7
RCS-R05/1-14-GY	1.0	5	1.4	7
RCS-R05/1-07-GY	1.0	5	0.7	3.5

Accessories

Item	Article description	Units/Carton
ADH-HT625/1,0	1 litre tin	12 litre
ACH-MASTICS	290 ml Cartridges	12 cartridges
CLEANER/1,0	1 litre tin	4 litre
RCS-BEND-10	75 mm width Arma-Chek R bandage roll (10m length)	9 rolls

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ABOUT ARMACELL

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.

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