

K-FLEX IN CLAD SYSTEM



The first flexible elastomeric foam approved by DNV For LNG and cryogenic applications



K-FLEX IN CLAD SYSTEM

- ▶ NON-METALLIC FLEXIBLE COATING
- ▶ DESIGNED FOR OIL & GAS AND INDUSTRIAL USE
- ▶ DEVELOPED FOR THE MOST CHALLENGING ENVIRONMENTS
- ▶ HIGH MECHANICAL AND CHEMICAL RESISTANCE
- ▶ RESISTANCE TO UV, SEA SALT, OIL AND OTHER ATMOSPHERIC AGENTS
- ▶ EASY TO INSTALL WITHOUT SPECIAL TOOLS
- ▶ FULL RANGE OF ACCESSORIES
- ▶ CAN BE APPLIED TO ANY INSULATION SYSTEM

> Site <



> Video <



> App. Manual <

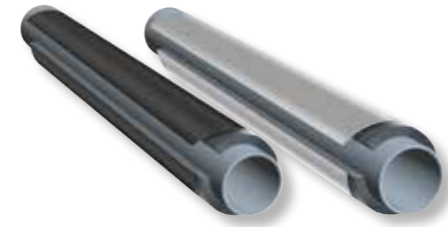


TECHNICAL DATA ▶ K-FLEX IN CLAD SYSTEM

Material	Flexible polymeric barrier	
Colour	Grey RAL 7001 and Black RAL 9011	
Thickness	1.2 mm (± 0.2)	
MAX Surface Temperature	80°C (176°F)	
MAX application temperature, IN CLAD System	105°C (221°F)	IN CLAD with K-FLEX ST
	120°C (248°F)	IN CLAD with K-FLEX ECO
MIN application temperature, IN CLAD System	-200°C (-328°F)	IN CLAD System with K-FLEX ST tested at -163°C (-260°F) and approved with a statement of feasibility by DNV
Water Vapour Permeability Moisture Resistance Factor (covering)	$\mu > 90.000$	EN12086
Specific weight	1,8 (± 0.1 g/cm³)	
Tensile Strength	>=6,9 MPa	ISO 37 (Typical value 7.5 MPa)
Elongation to break	>100%	ISO 37 (Typical values: elongation at 70%, elongation to break 300%)
Elastic Modulus	>=60 MPa	ISO 37 (Typical value 70 MPa)
Modulus 10%	>1.5 MPa	ISO 37
Peel adhesion	>50 KPa	ISO 2411
Shear strength	>20 N/25mm	ISO 34-1
Hardness	>=80 ShA	ISO 7619, ASTM D2240
UV Resistance	Extremely good	2 years of exposure in New River, Arizona (USA) as per ASTM G 7-97, no pitting, no cracking, no blistering
Salt Spray resistance	Extremely good	SO 3768 / ASTM B 117-73, 480 hours. No color shade, no scaling, no blistering
Ozone resistance	Extremely good	ASTM D1171 72h 50ppmh 20%, no oxidation
Resistance to aging	Extremely good	ISO 4982, after 360h, 72MJ, elongation to break and modulus conform to specification
Resistance to oil	Extremely good	ISO 1817; after 72h immersion in oil IRM 903, elongation to break and modulus conform to specification
Impact resistance	Extremely good	EN12691; 1 Kg, 20mm, 600mm
Health aspects	Dust and fiber free	
Spread of flame	Pass	BS 476 pt 7
Spread of flame	Pass	NF 92501
Fire propagation	Pass	BS 476 pt 6
Fire requirements for shipbuilding	Pass	IMO 61/67 part 2&5
Approvals and Supervisions	CE Marine Mark Approved (MED, module B)	DNV LNG Statement of Feasibility
	Type approval by American Bureau of Shipping	ABS Approval
	Type approved by Det Norske Veritas	
	Type approved by Lloyd's Register	
OTHER PROPERTIES:		
The product is compliant to the requirements of Norsok standard R-004 ed 3 (par. 5.9 non metallic jacketing)		Fixing: neoprenic glue (K-FLEX K414, K-FLEX K420)
Application: Product is flexible down to -20°C		Sealing: SMP sealant (Bostik Findley / Simson ISR 70-03 or ISR 70-05)

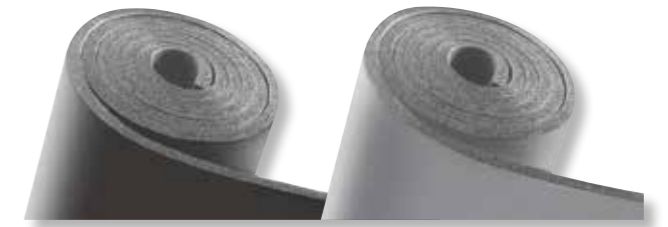
K-FLEX reserves the right to change data and technical requirements without notice.

RANGE ▶ K-FLEX IN CLAD SYSTEM (Black or Grey)



K-FLEX IN CLAD SYSTEM TUBES

Insulation system specifically designed for aggressive environments such as offshore platforms, industrial, oil and petrochemical plants exposed to the sun and sea water and in situations where a high performance material is required. IN CLAD SYSTEM tubes are composed of K-FLEX ST insulation coated with IN CLAD flexible polymeric film. The overlap facilitates installation and provides the coating system with a weather-proof seal. K-FLEX IN CLAD SYSTEM prevents corrosion under insulation (CUI) in your installation.



K-FLEX IN CLAD SYSTEM SHEETS

K-FLEX IN CLAD SYSTEM sheets are ideal for insulating large industrial pipes, tanks, silos and awkwardly shaped equipment. The system is flexible, easy to work and does not require special tooling for cutting and gluing. Sealing the joints with silicone ensures total water- and weather-proofing. The protective IN CLAD foil is the ideal solution to protect thermal and acoustic insulation materials. It can be applied on different insulating materials such as mineral wool, PUR/PIR, FOAMGLASS, Aerogel, etc.

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	LENGTH	THICKNESSES	DIAMETERS
K-FLEX IN CLAD SYSTEM Tubes	1 m	9-13-19-25-32-40-50 mm	da 15 a 168* mm

* For diameters greater than 168 mm, use sheet

	THICKNESSES	HEIGHT
K-FLEX IN CLAD SYSTEM Sheets	6-10-13-16-19-25-32-40-50 mm	1000 mm
K-FLEX IN CLAD SYSTEM Adhesive sheets	6-10-13-16-19-25-32-40-50 mm	1000 mm

ACCESSORIES ▶ K-FLEX IN CLAD SYSTEM



Preformed IN CLAD elbows - Gray Preformed IN CLAD elbows - Black Preformed "T" connections IN CLAD Gray Preformed "T" connections IN CLAD Black IN CLAD foil Gray IN CLAD foil Black

IN CLAD tape Gray IN CLAD tape Black IN CLAD pipe support IN CLAD pipe support with collar Silicone

Available in accessories section glues and thinners.