

EUROKOTE® 480 FC

Data Sheet

DESCRIPTION

EUROKOTE® 480 FC is a two component solvent free epoxy binder, cold applied by brush at high thicknesses. This coating provides good adherence on ferrous metals in a single coat and has excellent compatibility with epoxy coatings. Its very high reactivity means it hardens even at low temperature.

APPLICATION AREAS

EUROKOTE® 480 FC is specially designed for on-site applications (repairs, accessories, weld joints, valves and fittings, etc.) for the protection of pipes and accessories in contact with fresh water, sea water, industrial water and waste water.

EUROKOTE® 480 FC could be used as a repair product for EUROKOTE® 468 THIXO.

Maximum service temperature immersed in water: 50°C.

APPROVALS

EUROKOTE® 480 FC meets the requirements of the WRAS (British Standard 6920 part 2) for contact with drinking water.

CHARACTERISTICS

Number of components	: 2
Colour of dry film	: Red brown
Appearance of dry film	: Gloss
Density at 23°C	: Around 1.3 g/ml
Calculated dry solids (by volume)	: 100%

NOMINAL DRY FILM THICKNESS

Brush: 1 mm* - Number of coats: 1

THEORETICAL COVERAGE

Brush: 0.8 m²/kg, i.e. 1 m²/l for 1 mm DFT

DRYING TIME (for 1 mm dry film)

	<u>At 7°C</u>	<u>At 10°C</u>	<u>At 20°C</u>	<u>At 40°C</u>	<u>At 50°C</u>
Dust free	--	2 h 45	1 h 30	1 h	0 h 45
Hard dry	--	10 h	3 h 30	2 h	1 h 15
Fully dry *	21 d	7 d	5 d	3 d	2 d

* Depending on the application parameters, the environment and the composition of the systems.

CLEANING SOLVENT

Diluant 011.02

STANDARD PACKAGING

3 kg doses (R+D) in containers.

Please consult us for other types of packaging.



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STORAGE

Use by date: For standard packaging, 18 months under shelter at a temperature between + 5°C and + 35°C in the original unopened packaging.

SURFACE PREPARATION

The substrate should be clean, dry and free of oil or grease.

Scrape, grind or wire brush to a ST3 surface finish as per the ISO 8501-1 Standard or preferably strip by projection of abrasives to a Sa 2 ½ surface finish as per the ISO 8501-1 Standard with a roughness (Rz) of between 40 and 100 µm, then carefully remove dust.

When covering adjacent epoxy coatings, roughen then carefully remove dust.

PRODUCT PREPARATION

EUROKOTE® 480 FC is a two component product supplied in separate predosed non divisible packaging. Add part D (hardener) to part R (resin) and mix until completely homogeneous.

MIXING RATIO	BY VOLUME	BY WEIGHT
Epoxy resin (part R)	76%	81%
Hardener (part D)	24%	19%

MATURATION TIME: None

POT LIFE (for 4 kg): At 20°C: 15 min.

STANDARD APPLICATION CONDITIONS

EQUIPMENT AND SETTINGS

Application equipment	Flat brush
Pump ratio	—
Nozzle	—
Air pressure	—
Dilution (by weight)	Do not dilute

AIR TEMPERATURE/RELATIVE HUMIDITY	SUBSTRATE TEMPERATURE (3°C above the dew point)	PRODUCT TEMPERATURE
Min. T: + 5°C/Min. RH: 5%	Min. T: + 10°C	Min. T: + 10°C
Max. T: + 50°C/Max. RH: 85%	Max. T: + 50°C	Max. T: + 20°C

REPAIRS OF DAMAGED COATINGS

Any defects revealed when controlling the coating should be repaired according to the following procedure:

- The surface to be repaired should be free of any traces of oil, grease, humidity or other types of soiling.
- The damaged coating should be eliminated by scraping, sanding or any other appropriate method.
- The surface of the surrounding coating to be painted should be ground and roughened.
- The surface of the zone to be repaired and the surrounding areas should be carefully de-dusted.
- Prepare one kit of EUROKOTE® 480 FC.



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- Mix the two components "R" + "D" until they are entirely homogeneous with a stirrer, taking care to scrape the edges of the container.
- Apply an even coat of EUROKOTE® 480 FC to the required thickness with a stiff brush, a coating knife or a spatula while respecting the application conditions from this document.

After curing, the repaired zones should be controlled to check the thickness of the dry film and the absence of any porosities in accordance with paragraph 3 and to ensure they meet the requirements of the initial coating.

HEALTH AND SAFETY

Flash point : Part R: > 55°C - Part D: > 55°C

Always consult the legal labelling on the packaging and the material safety data sheet before use.

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PROPERTIES OF THE COATING

PHYSICAL

Tests	Standard	Substrate	Thickness	Result
Electrical non porosity at 20°C (5V/μm)	NFA 49-709	Steel Sa 2 ½	1000 μm	No porosity
Sattec adhesion at 20°C	ISO 4624	Steel Sa 2 ½	1000 μm	≥ 15 MPa
Shore D hardness at 20°C	ISO 868	Steel Sa 2 ½	1000 μm	≈ 70

MECHANICAL

Tests	Standard	Substrate	Thickness	Result
Flexibility at 20°C	NFA 49-709	Steel Sa 2 ½	1000 μm	≥ 1.5%
Tensile strength at 20°C	ISO 1184	Free film	1000 μm	≈ 20 N/mm ²
Modulus of elasticity at 20°C	ISO 1184	Free film	1000 μm	≈ 350 N/mm ²

CHEMICAL

Tests	Standard	Substrate	Thickness	Result
Immersion in salt water (5% NaCl) for 100 days at 50°C	ISO 2812	Steel Sa 2 ½	1000 μm	No alteration
Immersion in deionised water for 100 days at 50°C	ISO 2812	Steel Sa 2 ½	1000 μm	No alteration
Specific electrical insulation resistance - after 70 days at 23°C - after 100 days at 23°C - ratio Rs 100 days / Rs 70 days	NFA 49-709	Steel Sa 2 ½	1000 μm	> 10 ⁸ Ω.m ² > 10 ⁸ Ω.m ² > 0.7
Cross hatch adhesion at 23°C - before immersion - after immersion for 28 days in water at 20°C	NFA 49-709	Steel Sa 2 ½	1000 μm	Class 1 Class 1
Cathodic disbondment after 28 days at 23°C	NFA 49-709	Steel Sa 2 ½	1000 μm	≤ 8 mm
Salt spray resistance	NFA 49-709	Steel Sa 2 ½	1000 μm	No alteration after 1000 h