

Epiflex

Resin Mortar Transition Strip & Gap Filler

Description

Epiflex is a three component epoxy-urethane resin, it may be used as an 'unfilled' two part system for narrow gaps or 'filled' three part system (as standard) for wider gaps. Typical uses include car park and bridge joint transition strips and the filling of voids and joints in concrete, stone and granite elements. Epiflex is suitable for use on pedestrian or vehicular trafficked areas and complies with Highways Agency Specification for Highway Works. Epiflex is flexible, non-shrink and is tolerant to damp surfaces. It will provide high bond strength to a variety of materials including steel, artstone, natural stone and concrete, and has excellent adhesive quality even on non-porous surfaces such as

Advantages

- No primer required
- Excellent bond strength
- Resistant to frost, road salts and fuel oil
- Hard Wearing with inbuilt flexibility
- Extremely low Modulus of Elasticity in flexure
- Durable and long lasting
- Excellent adhesion to concrete, stone, asphalt and metal
- Tolerant to damp conditions
- Very long service life

Surface preparation


All surfaces should be clean, dry and free from loose material. The edges of the repair area should be recessed at least 10mm, feather-edging is not recommended.

Mixing

The entire contents of the hardener tin should be added to the base tin and thoroughly stirred using a slow speed drill fitted with a mixing paddle. The mixed resin components should then be transferred to a suitable container and the aggregate component added and thoroughly mixed.

Application Instructions

Carefully place the mixed Epiflex between the joint and road surface/substrate taking care not to entrain air. Allow to settle and then fill to correct level. In trafficked areas top the surface with a light scatter of the appropriate grade of coated bauxite.

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Nufins, Kingston House, 3 Walton Road, Pattinson North, District 15, Washington, Tyne & Wear. NE38 8QA 13 0086-CPD-594215	
EN 1504-3 Concrete repair product for non-structural repair PC Mortar (polymer mortar)	
Compressive strength	Class R2 (>15 MPa)
Adhesive bond strength	>0.8 MPa
Adhesion after freeze/thaw (50 cycles with salt)	>0.8 MPa
Dangerous substances	Complies with 5.4

Curing

Epiflex is designed as a cold curing system. To accelerate the rate of cure and accommodate early trafficking (2-3 hours) and/or low temperature applications the components can be warmed prior to mixing. The resin (base and hardener) may be warmed to 15-25oC . The aggregate may be warmed to 40-50oC. The components can then be mixed in the normal method detailed above.

Packaging

Epiflex is available in 20kg units (yield approx. 9.5 Litres).



Technical properties of Epiflex.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Black Resinous Mortar
Chloride-ion content	EN1015-17	≤0.05%	<0.05%
Aggregate size			Max. 4mm
Transition strip - minimum width			20mm (Filled) 2mm (Unfilled)
Working time (@ 23°C)			2-3 Hours
Working time (@ 5°C)			≥4 Hours
Density			2000-2100 kg/m ³
Temperature for application			5°C to 35°C*
Minimum cure before stress (20°C)			24 Hours
Vehicular trafficking time summer (>15°C) winter (<5°C)			1-3 Days 3-5 Days
Compressive Strength	EN 12190	≥ 15 MPa	≥ 22 MPa (Filled) ≥ 12 MPa (Unfilled)
Tensile Strength	BS6319-7		≥ 4 MPa (Filled) 8.1 MPa (Unfilled)
Flexural Strength	BS6319-3		Flexed beyond test range
Modulus of elasticity, In flexure	BS6319-3		Flexed beyond test range
Adhesion - concrete	EN1542	≥ 0.8 MPa	≥ 2.0 MPa
Adhesion after freeze/thaw (50 cycles with salt)	EN13687-1	≥ 0.8 MPa	≥ 2.0 MPa
Adhesion after thunder showers (30 cycles)	EN13687-2	≥ 0.8 MPa	≥ 2.0 MPa
Adhesion after dry cycling (30 cycles)	EN13687-4	≥ 0.8 MPa	≥ 2.0 MPa
Skid Resistance	EN13036-4		Class 2
Carbonation resistance	EN13295	$d_k < \text{ref. concrete}$	$d_k < \text{ref. concrete}$
Capillary absorption	EN13057	$\leq 0.5 \text{ kg/m}^2/\text{h}^{-0.5}$	$\leq 0.5 \text{ kg/m}^2/\text{h}^{-0.5}$
Cracking tendency	Coutinho Ring Test		No cracking after 180 days

Technical data shown are statistical results and do not correspond to guaranteed minima.

Tolerances are those described in appropriate performance standards.

All tests were performed after 7 days curing at 23°C, unless otherwise stated.

Storage

The shelf life is 12 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost. In cold conditions warming the resin components prior to mixing will greatly assist the materials mixing and usage.

Health & Safety

Product Safety Data Sheets (SDS) are available from Nufins. SDS sheets are provided to help customers satisfy their safe handling, use and disposal needs as well as assist with any conformance requirements made locally by health and safety regulations.

SDS are continually updated to provide the latest information to our customers. We therefore recommend contacting our head office to obtain the most recent and accurate SDS before handling and using any product.

Limitations

Do not apply below 5°C. A method statement is available detailing application requirements at low temperatures.

Disclaimer

The information contained herein is to the best of our knowledge true and accurate and is given in good faith but without warranty. The user will be deemed to have satisfied themselves independently as to the suitability of our products for their own particular purpose. In no event shall Nufins be liable for consequential or incidental damages.

Users must always refer to the most recent issue of the Technical Datasheets, copies of which will be supplied on request.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors. Technical contacts are available to provide further information and arrange demonstrations.