

Epikerb

Epoxy Bedding Mortar

Description


Epikerb has been formulated to enable the fixing of concrete kerbs directly onto concrete or asphalt allowing savings to be made by eliminating the need of a bedding channel or backing material. Epikerb is a pre-weighed three component system of solvent free epoxy resin and hardener which, when blended with the graded aggregates, forms a high strength mortar with outstanding adhesive properties. The material may also be used as a general bedding mortar for pre-cast units, coping stones, manhole frames, machinery, etc. Epikerb is designed to comply with the requirements of EN1504 Part 3 Class R4.

Advantages

- Economical - no need to excavate a bedding channel.
- Ready for trafficking in a few hours.
- Tolerant to damp surfaces.
- No need for a primer.
- High bond strength saves on maintenance costs.
- No back filling required.
- Pre-weighed ingredients are supplied in sealed containers.
- Durable and long lasting.
- Low Modulus of Elasticity in flexure.
- Can be used as a gap/joint filler.
- Excellent adhesion to concrete, stone, asphalt and metal.
- Tolerant to road salts and freeze-thaw.

Technical Information

Full cure	7 Days
Working time (@ 23°C)	45-60 Minutes
Hardening Time (@ 23°C)	60-90 Minutes
Minimum cure prior to stress (@ 23°C)	4 Hours
Temperature for application	5°C to 35°C
Minimum thickness	5mm

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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 structural repair PC Mortar (Polymer mortar)	
Compressive strength	Class R4 (>45 MPa)
Chloride ion content	<0.05%
Adhesive bond strength	>2.0 MPa
Adhesion after freeze/thaw	>2.0 MPa
Elastic modulus	>20 GPa
Dangerous substances	Complies with 5.4

Vehicular Trafficking Time

Summer	@ >15°C	12-24 Hours
Winter	@ >5°C	1-3 Days
Winter with forced warming		12-24 Hours



Technical properties of Epikerb.

Properties	Standard	Performance Requirement	Declared Value
Appearance			Grey Resinous Mortar
Chloride-ion content	EN1015-17	≤0.05%	≤0.05%
Max. aggregate size			2mm
Density			2000-2100 kg/m ³
Working time (@ 23°C)			45-60 Minutes
Hardening Time (@ 23°C)			60-90 Minutes
Compressive Strength @ 23°C	EN 12190	≥ 45 MPa	35 MPa @ 4 Hr 41 MPa @ 6 Hr 80 MPa @ 18 Hr 85 MPa @ 24 Hr 86 MPa @ 2 Days 87 MPa @ 3 Days 90 MPa @ 7 Days
Compressive Strength @ 5°C	EN 12190		6 MPa @ 4 Hr 14 MPa @ 6 Hr 50 MPa @ 18 Hr 55 MPa @ 24 Hr 60 MPa @ 2 Days 70 MPa @ 3 Days 75 MPa @ 7 Days
Tensile Strength	BS6319-7		>13.0 MPa
Flexural Strength	BS6319-3		>27 MPa
Modulus of Elasticity, In Flexure	BS6319-3		>20 GPa
Modulus of Elasticity, In Compression	EN13412	≥ 20 GPa	> 20 GPa
Adhesion - concrete	EN1542	≥ 2.0 MPa	≥ 2.0 MPa
Adhesion after freeze/thaw (50 cycles with salt)	EN13687-1	≥ 2.0 MPa	≥ 2.0 MPa
Adhesion after thunder showers (30 cycles)	EN13687-2	≥ 2.0 MPa	≥ 2.0 MPa
Adhesion after dry cycling (30 cycles)	EN13687-4	≥ 2.0 MPa	≥ 2.0 MPa
Skid Resistance	EN13036-4		Class 1
Carbonation resistance	EN13295	$d_k \leq \text{ref. concrete}$	$d_k < \text{ref. concrete}$
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.



Surface preparation

All surfaces should be clean, free from oil, grease and chemical contamination, free standing water, old paint and loose debris. Oil and grease should be removed using Desolve. New concrete should be fully cured and scabbled or thoroughly wire brushed to remove any laitance or loose material.

Steel should be grit blasted or mechanically abraded to a clean bright finish.

Mixing

The Epikerb base and hardener components should be mechanically mixed in the base container. In cold conditions it will greatly aid mixing if the materials are stored in warm conditions.

Once the base and hardener are mixed they should be transferred to a suitable forced action mechanical mixer such as a Creteangle or Danes and the aggregate added slowly. Once all the aggregate is added mix thoroughly for 3-4 minutes, until a homogenous mix is obtained.

Application Instructions

Epikerb mortar should be loosely placed onto the prepared substrate. The Epikerb should be at least 5mm thicker than the finally required bed.

The kerb should then be placed firmly on top of the mortar and worked into place to the required level. Any excess mortar squeezed out should be removed at this stage. It is not recommended to drop below a 5mm bed.

The mixed product may also be used as a heavy duty gap filler. A method statement is available on request.

Packaging

Epikerb is packed in 20kg units (9.7 litres).

Storage

Epikerb should be stored in cool dry conditions. If stored at temperatures of 10°C or below the containers should be warmed prior to use as this will greatly aid the mixing procedure. Epikerb should be stored away from foodstuffs and out of the reach of children.

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.

Minimum compacted bed thickness is 5mm.

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.

