

## Epikerb

### Epoxy Bedding Mortar

#### Description


Epikerb has been formulated to enable the fixing of concrete & composite 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 graded aggregates, form 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.

#### Advantages

- Economical - no need to excavate a bedding channel
- Ready for trafficking in a few hours
- Tolerant to damp surfaces
- No need for primer
- High bond strength saves on maintenance costs
- No back filling required
- Pre-weighed ingredients are supplied in sealed containers
- Durable & long lasting
- Low modulus of elasticity in flexure
- Can be used as a gap or joint filler
- Suitable for depths up to 100mm
- Excellent adhesion to concrete, stone, asphalt & metal
- Tolerant to road salts & freeze-thaw
- Complies with EN1504 Part 3 Class R4

#### 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
Application temperature	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 23 0086-CPR-774186	
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			2 mm
Density			2000-2100 kg/m <sup>3</sup>
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 hours 41 MPa @ 6 hours 80 MPa @ 18 hours 85 MPa @ 24 hours 86 MPa @ 2 days 87 MPa @ 3 days 90 MPa @ 7 days
Compressive strength @ 5°C	EN 12190		6 MPa @ 4 hours 14 MPa @ 6 hours 50 MPa @ 18 hours 55 MPa @ 24 hours 60 MPa @ 2 days 70 MPa @ 3 days 75 MPa @ 7 days
Tensile strength	BS 6319-7		>13.0 MPa
Flexural strength	BS 6319-3		>27 MPa
Modulus of elasticity, in flexure	BS 6319-3		>20 GPa
Modulus of elasticity, In compression	EN 13412	≥20 GPa	> 20 GPa
Adhesion - concrete	EN 1542	≥2.0 MPa	≥2.0 MPa
Adhesion after freeze/thaw (50 cycles with salt)	EN 13687-1	≥2.0 MPa	≥2.0 MPa
Adhesion after thunder showers (30 cycles)	EN 13687-2	≥2.0 MPa	≥2.0 MPa
Adhesion after dry cycling (30 cycles)	EN 13687-4	≥2.0 MPa	≥2.0 MPa
Skid resistance	EN 13036-4		Class 1
Carbonation resistance	EN 13295	$d_k \leq \text{ref. concrete}$	$d_k < \text{ref. concrete}$
Capillary absorption	EN 13057	$\leq 0.5 \text{ kg/m}^2 \cdot \text{h}^{0.5}$	$\leq 0.5 \text{ kg/m}^2 \cdot \text{h}^{0.5}$
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 testing was conducted at 23°C under laboratory conditions, unless otherwise stated.

## Surface preparation

All surfaces should be sound, clean, and free of oil, grease, chemical contamination, old paint and loose debris. They should be free of standing water and be preferably dry.

New concrete should be fully cured and scabbled or thoroughly wire brushed to remove any laitance or dust.

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

## Mixing

Mixing will require a slow speed drill fitted with an appropriate 80mm paddle, as well as a suitable forced action mechanical mixer.

In low temperatures, the materials should be stored between 10°C and 20°C in order to assist mixing and application.

Mix by pouring all of the Hardener component of Epikerb into the Base container and mix thoroughly by drill and 80mm paddle. Once Hardener and Base have been thoroughly mixed they should be transferred to the mixer drum and the supplied bag of aggregate added slowly whilst the drum is rotating. Once all the aggregate is included, continue mixing for 3-4 minutes till a homogenous mortar is obtained.

## Application Instructions

Epikerb should be loosely placed onto the prepared substrate and should be at least 5mm greater than the final required bed depth.

The kerb or other unit should then be placed firmly on top of the mortar and worked into position 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 from Nufins technical department.

## Cleaning

Mixing equipment and tools should be cleaned immediately after use and frequently throughout the day to avoid product build up, using Nuwash.

## Packaging

Epikerb is available in 20kg units (yield approximately 9.7 litres or 0.9m<sup>2</sup> @ 10mm depth per unit).

## Storage

The shelf life is 12 months when stored unopened in dry, normal conditions and away from direct sunlight. Protect from frost.

## 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. In low temperatures, the materials should be stored between 10°C and 20°C in order to assist mixing and application. In temperatures below 5°C it is necessary to assist curing by the use of tenting and warm air blowers. Please refer to Nufins technical department for further advice.

Minimum compacted bed thickness is 5 mm.

## 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.