

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 |
| 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.

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.