

Specialist Construction Supplies for Repair, Maintenance, Building & Infrastructure

# **Epikerb Data Sheet**

Specification notes

Product: Epikerb

Supplier:

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# **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
- 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
- Tolerant to road salts and freeze-thaw.
- Compliant with EN1504 Part 3 Class R4.

### **Technical Information**

Typical Compressive strengths of 40mm cubes (MPa).

Cure Temp	4Hr	6Hr	18Hr	24Hr	2Day	3Day	7Day
5°C	6	14	50	55	60	70	75
23°C	35	41	80	85	86	87	90

Tested in accordance with EN12190.

Full cure 7 Days Yield, per 20kg pack 9.7 Litres 4 Hours (@ 23°C) Minimum cure prior to stress

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EN 1504-3 Concrete repair product for structural repair PC Mortar (Polymer mortar)

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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**

@ >15°C Summer 12-24 Hours @ >5°C Winter 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	
Layer minimum thickness			5mm	
Working time (@ 23°C)			45-60 Minutes	
Hardening Time (@ 23°C)			60-90 Minutes	
Density			2000-2100 kg/m <sup>3</sup>	
Temperature for application			5°C to 35°C	
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 <sub>k</sub> ≤ ref. concrete	d <sub>k</sub> < ref. concrete	
Capillary absorption	EN13057	≤ 0.5 kg/m <sup>2</sup> /h <sup>-0.5</sup>	≤ 0.5 kg/m²/h <sup>-0.5</sup>	
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.

 $1 \text{ N/mm}^2 = 1 \text{ MPa}$ 

 $1 \text{ kN/mm}^2 = 1 \text{ GPa}$ 





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### **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  $10^{\circ}$ 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**

Epikerb, like similar products, is capable of irritating unprotected skin. We therefore recommend the use of a suitable barrier cream and that gloves be worn.

#### 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 representatives are available to provide further information and arrange demonstrations.





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