

# SOLVENTLESS EPOXY FOR ROAD REPAIR

## EPAR 121B

### TECHNICAL DATA

#### 1.0 DESCRIPTION

EPAR 121B is a solventless liquid epoxy which has very good mechanical strength and moderate flexibility.

EPAR 121B has excellent chemical resistance and adhesion to concrete, metal and asphalt.

#### 2.0 PHYSICAL PROPERTIES:

2.1	Viscosity	low – easily poured liquid.
2.2	Mix Ratio	1 : 1 by volume or 1.1 (resin) : 1.0 (hardener) by weight.
2.3	Pot Life	25 minutes at 20°C for 100 g.
2.4	Minimum Application Temp.	0°C.
2.5	Shelf Life	1 year in original unopened containers.
2.6	Cured Properties	
2.6.1	Colour	Black.
2.6.2	Specific Gravity	1.05
2.6.3	Compressive Strength (MPa) 1 day	14*
2.6.4	Compressive Modulus (MPa)	28
2.6.5	Compression recovery (%) after 24 hours	100
2.6.6	Compressive Strength * (MPa) 7 days	26
2.6.7	Compressive Modulus (MPa)	52
2.6.8	Compression recovery (%) after 24 hours	95
2.6.9	Tensile Strength (MPa)	13
2.6.10	Flexural Strength (MPa)	35 **
2.6.11	Flexural Modulus (MPa)	34
2.6.12	Hardness (Shore D)	53

\* Compressive Strength: Ductile failure because of flexibility of material. Quoted compressive strength is pressure required to achieve approximately 50% compression. Compressive Modulus is also at 50% compression and compression recovery is % of initial length achieved after 50% compression and 24 hours recovery at ambient temperature.

\*\* Ductile failure. Tested only to 12.5 mm deflection for 21-22 mm thick and 40 mm long test pieces.

#### 3.0 USES

3.1 EPAR 121B has excellent compatibility with asphaltic surfaces. It may be used as a coating onto which grit or aggregate is bonded to form a skid resistant wearing course.

EPAR 121B is also recommended for mixing with a silica aggregate to form a trowellable mortar, it is ideal as a levelling material for asphaltic surfaces.

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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS

- 4.1 EPAR 121B may be used as a chemically resistant coating for bitumen and concrete surfaces, against acids, oils, fats etc.
- 4.2 The combination of flexibility and hardness make EPAR 121B suitable as a joint filler where a small amount of movement is expected, e.g., expansion joints in concrete slabs.
- 4.3 EPAR 121B mixed with silica aggregate is an excellent expansion joint nosing material for bridges.
- 4.4 **SURFACE PREPARATION.** Thoroughly clean the jointing surfaces of all extraneous matter, especially oil and grease. Laitance should be removed from concrete surfaces mechanically or by acid etching. For best results steel surfaces should be prepared by sand blasting or grinding.
- 4.5 **MIXING.** Accurately proportion required volume of resin and hardener ensuring this amount can be used within its pot life. Mix thoroughly, preferably using a paint stirrer fitted to a low speed electric drill. During the mixing process scrape the bottom and sides of the container at least once with a spatula or similar tool to ensure all components are incorporated. Mixing should continue for approximately 5 minutes. Take care to avoid air entrapment.

When EPAR 121B is to be mixed with aggregate, resin and hardener should first be mixed as above. Aggregate to be added to the epoxy must be completely dry. Blend in sufficient aggregate to obtain the desired viscosity and mix until an even texture is obtained.

#### 4.6 APPLICATION.

- 4.6.1 **Non-Skid Surfacing.** Apply EPAR 121B at a coverage rate of 2m<sup>2</sup> per litre, by brush, roller broom or spray. If the non-skid aggregate is larger than 5mm a lower coverage may be required.  

Evenly broadcast the non-slip particles onto the surface and do not expose to traffic until epoxy has cured.
- 4.6.2 When EPAR 121B is mixed with more than 3 parts aggregate to 1 part epoxy surfaces to which it is to bond should first be primed with unfilled EPAR 121B. For best results, brush apply a thin coating of EPAR 121B working it well into the substrate. Apply aggregate filled EPAR 121B while the prime coat remains tacky.
- 4.6.3 When trowelling filled EPAR 121B a smooth finish may be obtained by keeping the face of the trowel wet with EPAR Epoxy Solvent.
- 4.7 **CLEAN-UP.** Tools and equipment may be cleaned before hardening commences by washing with EPAR CLEAN UP SOLVENT. Clean hands and skin with soap and hot water.
- 4.8 Refer to product label for additional information. Refer to material safety data sheet for first aid and handling information



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# EPAR 121B

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## TECHNICAL DATA Continued

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### 5.0 PRECAUTIONS

Wear appropriate personal protective equipment when using this product. Avoid skin and eye contact. Do not breathe vapours. Read product labels before use. Refer to Safety Data Sheet for complete handling and first aid details. Mix whole pack only if it can be used comfortably within 30 minutes.

### 6.0 PACKAGING

4 L pack (2 L resin, 2 L hardener), 8 L pack (4 L resin, 4 L hardener) 40 L pack (20 L resin, 20 L hardener).



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