

# SOLVENTLESS EPOXY FOR ROAD REPAIR

# EPAR 121B & EPAR 121G

## TECHNICAL DATA

### 1.0 DESCRIPTION

EPAR 121B (black) and EPAR 121G (grey) are solventless liquid epoxies which have very good mechanical strength, good chemical resistance and excellent flexibility.

EPAR 121B and EPAR 121G adhere very well to concrete, metal and asphalt.

EPAR 121G is only supplied subject to minimum order quantities.

### 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 (7 days cure at 23°C unless stated otherwise)	
2.6.1	Colour	Black or Grey, respectively
2.6.2	Specific Gravity	1.05
2.6.3	Compressive Strength	1 day cure N/A (no failure at 50% strain)
2.6.4	Compressive Modulus	1 day cure, 50% strain 36 MPa
2.6.5	Compression recovery	1 day cure, 7 day recovery 100%
2.6.6	Compressive Strength	7 day cure N/A (no failure at 50% strain)
2.6.7	Compressive Modulus	7 day cure, 50% strain 39 MPa
2.6.8	Compression recovery	7 day cure, 7 day recovery 100%
2.6.9	Tensile Strength	7.6 MPa
2.6.10	Maximum strain at tensile failure	> 200%
2.6.11	Tensile Modulus at 100% strain	3.4 MPa
2.6.12	Shore Hardness	90 (A) 35 (D)
2.6.13	Shore Hardness after 7 days water immersion	89 (A) 35 (D)
2.6.14	Weight increase, 7 days water immersion	0.6%

### 3.0 USES

3.1 EPAR 121B and EPAR 121G have excellent compatibility with asphaltic surfaces. Grit or aggregate may be bonded to them to form a skid resistant wearing course.

EPAR 121B and EPAR 121G are also recommended for mixing with a silica aggregate to form a trowellable mortar. They are ideal as levelling materials for asphaltic surfaces.

# EPAR 121B & EPAR 121G

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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS

- 4.1 EPAR 121B and EPAR 121G may be used as chemically resistant coatings for bitumen and concrete surfaces, against acids, oils, fats etc.
- 4.2 EPAR 121B and EPAR 121G are more heat resistant than asphalt. They will not melt or run in hot summer conditions.
- 4.3 The combination of flexibility and strength make EPAR 121B and EPAR 121G suitable as joint fillers where a small amount of movement is expected, e.g., expansion joints in concrete slabs. Mixed with silica aggregate or rubber crumb, they are excellent expansion joint nosing materials for bridges. EPAR 121B is available as EPAR 121BRC, packed with sufficient fine and coarse rubber crumb to mix into the epoxy, making it even more flexible (see separate data sheet).
- 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.

Mix a quantity that can be used within its pot life. Note that mixing larger amounts in hot weather will drastically reduce pot life.

When EPAR 121B or EPAR 121G are 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 or EPAR 121G at a spreading 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 spreading rate (higher film build) 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 or EPAR 121G are mixed with more than 3 parts aggregate to 1 part epoxy, surfaces to which it is to bond should first be primed with unfilled epoxy. For best results, brush apply a thin coating of EPAR 121B or EPAR 121G unfilled epoxy, working it well into the substrate. Apply aggregate filled epoxy while the prime coat remains tacky.
- 4.6.3 When trowelling filled EPAR 121B and EPAR 121G a smooth finish may be obtained by keeping the face of the trowel wet with EPAR Epoxy Solvent.



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# EPAR 121B & EPAR 121G

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## TECHNICAL DATA Continued

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### 4.0 APPLICATION INSTRUCTIONS (continued)

- 4.7 **CLEAN-UP.** Tools and equipment may be cleaned before hardening commences by washing with EPAR EPOXY SOLVENT. Clean hands and exposed skin with soap and hot water.
- 4.8 Refer to product label for additional information.

### 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.
- Read Safety Data Sheet for complete handling and first aid details.
- Mix whole pack (4L or 8L) only if it can be used comfortably within 30 minutes (20 minutes in warm weather).

### 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).

Note that EPAR 121G is not a stock item. Minimum order quantity applies.



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