

### PRODUCT DESCRIPTION

E<sup>3</sup>-Deep Pour is a high strength epoxy grout designed for grouting machine and equipment bases of all types. E<sup>3</sup>-Deep Pour provides maximum bearing for bases of numerous configurations and can be used for both deep placements and where clearances are down to 12mm. E<sup>3</sup>-Deep Pour meets the requirements of the American Petroleum Institute Standard 610, Appendix L for Baseplate and Soleplate Grouting.

### USAGE/PURPOSE

Critical, heavy duty, non-shrink, epoxy grouting applications including:

- Pump and machinery baseplates subject to dynamic loading
- Large volume placements
- Vibration dampening of equipment
- Tanks, turbines and housings
- Crane Rail Grouting
- Pour-backs for post tension projects
- Re-building foundations, bases and columns

### FEATURES & BENEFITS

- Low exotherm for large volume applications
- Expansive non-shrink grout
- Excellent effective bearing area
- Variable fill ratios for placement versatility
- Excellent bond to foundation and base plate
- Stable in deep pour applications
- Long working time

### STORAGE

Store in original, undamaged packaging in a clean, dry, protected location. Shelf life will be 24 months when stored as recommended.



### COVERAGE/YIELD

- Approximately 43lts per unit at High Flow Consistency (4 bags of aggregate)
- Approximately 52lts per unit at Standard Flow Consistency (5 bags of aggregate)

### PACKAGING

- Part A: Resin
- Part B: Hardener
- Part C: Aggregate

### TYPICAL PHYSICAL PROPERTIES (@21°C)

PROPERTY		TEST METHOD	STANDARD UNIT	HIGH FLOW UNIT
Compressive Strength	1 Day	ASTM C579 (Method B)	77 MPa	76 MPa
	7 Days		100 MPa	97 MPa
	28 Days		104 MPa	103 MPa
Volume Change		ASTM C827	Positive Expansion	Positive Expansion
Compressive Creep	28 Days	ASTM C1181 (2.8 MPa @ 60°C)	3.6 x 10 <sup>-3</sup> mm/mm	4.3 x 10 <sup>-3</sup> mm/mm
Flexural Strength	28 Days	ASTM C580	31 MPa	32 MPa
Tensile Strength	28 Days	ASTM C307	14 MPa	14 MPa
Bond Strength		ASTM C882	Concrete Failure	Concrete Failure
Coefficient of Thermal Expansion		ASTM C531	2.8 x 10 <sup>-6</sup> in/in/°F (23° to 99°C)	2.8 x 10 <sup>-6</sup> in/in/°F (23° to 99°C)
Maximum Thickness per Lift			Up to 450mm	Up to 230mm
Effective Bearing Area		ASTM C1339	≥ 95%	≥ 95%
Chemical Resistance				Excellent resistance to most industrial chemicals
Working Time				60 minutes

\*Compressive Strength results published above are typical results based on laboratory testing using 50mm cubes. Variations of these results can be expected if alternative sample sizes, or test methodology is used.

### INSTALLATION GUIDELINES

**Surface Preparation (Concrete):** Concrete surfaces must be prepared using acceptable mechanical means and concrete degreasers as necessary to obtain a clean, sound and rough concrete surfaces with an exposed coarse aggregate profile. The prepared substrate must be free from oil, grease, surface laitance and any other contaminants. The prepared surface must be dry prior to grout placement.

**Surface Preparation (Steel):** Where bond to metal surfaces is not required, coat with a bond breaker. Where bond to metal surfaces is required, the surface shall be clean, free of oil, grease, rust, loose coatings and any other contaminants. Abrasive blasting of metal base plates to a commercial finish (SSPC-SP6) will enhance bond. Air relief holes must be provided where base plate design and high spots will create air pockets. Any shims and wedges that are to remain in place, should be positioned a minimum of 50mm from the edge of the baseplate & have rounded corners to reduce stresses created during grouting.

**Formwork:** Formwork shall be rigid, securely anchored & strong enough to resist the forces created during grout placement. Formwork shall be caulked/sealed to prevent grout leakage during placement. Formwork shall be coated with a suitable paste wax or wrapped with polyethylene tape. Commercially available form release compound is not sufficient to facilitate stripping of forms when using epoxy grout. The clearance between formwork and base plate on the pouring side shall be sufficient to allow for a head box. The clearance for remaining sides shall be 25 to 50mm. The unrestrained shoulders of the grout must be kept to a minimum. Height of formwork shall extend a minimum of 25mm above the bottom of the base plate.

**Mixing:** A mortar or pan mixer must be used for mixing of E<sup>3</sup>-Deep Pour Epoxy Grout. Do not exceed one-half the maximum capacity of the mortar mixer. Concrete or cement mixers must not be used for mixing epoxy grout. Add Hardener (Part B) to Resin (Part A) and mix for 1 to 2 minutes. Pour mixed liquids into the mortar mixer. Add Aggregate (Part C) to the mortar mixer one bag at a time and continue mixing for 2 to 3 minutes, until the aggregate is completely wetted out. Place grout immediately after mixing. Do not mix more material than can be placed within the working time of the grout.

**Placement:** E<sup>3</sup>-Deep Pour Epoxy Grout can be poured into place. The High Grade can be pumped into place by experienced grouting contractors. Placement thicknesses range from 12mm up to 450mm per lift. Grout must be placed quickly and continuously from one side only and across the shortest distance possible. A head box or similar device is recommended when pouring grout to avoid air pockets under the baseplate and assure complete filling of the void. Place grout only to the bottom edge of the baseplate. Straps pre-placed under the plate can be used to aid placing the material. Isolation joints must be used when grouting long base plates. Contact customer service on (02) 9638 2755 should you require more detailed placement guidelines.

**Finishing and Curing:** E<sup>3</sup>-Deep Pour Epoxy Grout does not require any special curing procedures. If a smooth finish is desired, the surface of the grout may be troweled with a solvent wiped trowel just before the grout becomes unworkable. Solvent must not be poured directly onto the grout. Formwork may be removed as soon as the grout has stiffened or set sufficiently to prevent sagging away from the bottom of the baseplate. **Note:** If chamfer strips were not included in formwork, then exposed shoulders should be mechanically trimmed to provide a 45° chamfer on vertical & top edge sharp corners. Tools and equipment can be cleaned with water and strong detergent before grout sets.

### PRECAUTIONS/LIMITATIONS

- ❑ For optimum performance grout should be conditioned to ambient temperatures of between 20°C and 27°C. Temperature of substrate and equipment should be between 12°C and 32°C
- ❑ When grouting in extreme conditions, contact Customer Service on (02) 9638 2755 for more detailed hot/cold weather placement guidelines
- ❑ Rate of strength gain is significantly affected by temperature extremes. Published Physical Properties are typical values at ambient conditions
- ❑ Grout shoulder cracking may occur on wide shoulders and/or in long length of grout. These cracks are typically of no structural significance. Isolation joints should be used/considered to help control cracking
- ❑ Store materials in a dry place
- ❑ In all cases, consult the Safety Data Sheet before use

### HEALTH & SAFETY PRECAUTIONS

The Safety Data Sheet (SDS) must be read and understood prior to use.

### TECHNICAL SERVICE

Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

### GUARANTEE/WARRANTY

TREMCO products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with TREMCO written instructions and (b) in any application recommended by TREMCO, but which is proved to be defective, will be replaced free of charge. Any information provided by TREMCO in this document in relation to TREMCO's goods or their use is given in good faith and is believed by TREMCO to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. TREMCO makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

### CONTACT OUR TEAM

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