



# Technical Data Sheet

## B2013 Steel Epoxy Resin

### PRODUCT DESCRIPTION

A steel filled epoxy adhesive for general maintenance and repairs. Can be used to repair work or fatigued metals, patch castings, making jigs and fixtures, rebuild pumps and valve bodies.

### APPLICATIONS

- Repairs work or fatigued metals.
- Patch castings.
- Making jigs and fixtures.
- Rebuilds pump and valve bodies.
- Restores bearing journals and races.

### USEFUL HINTS/NOTES

- Applies easily, needs no special tools.
- Bonds most metals and concrete.
- Machinable.
- Resistant to most chemicals.
- Qualified under Mil. Spec DOD-C 241768.

### INSTRUCTIONS FOR USE

Proper surface preparation is essential to the success of any epoxy application. In all cases the surface should be clean, dry free from any oils and rough.

- Remove all oils, dirt and grease by means of a strong cleaner/degreaser.
- Roughen the surface by grit blasting (8-40 mesh grit) or grinding. A3-5ml profile for most applications.
- All abrasive preparation should be followed by another clean to remove any remnants from that process.
- Ideal application temperature is 13°C-32°C under cold conditions heating the repair area to 38°C-43°C is recommended.
- Mix equal quantities of the two parts and stir thoroughly until a uniformed colour is obtained. Where a static mixing nozzle is supplied the 2 parts will be mixed correctly upon dispensing.
- Spread the mixed material over the repair and work firmly into the substrate to ensure maximum surface contact. To bridge large gaps or holes use fibreglass

- tape, expanded metal or mechanical fasteners.
- Allow material to cure for at least 4 hours before machining. Lathe speed: 150ft/min. Cut: Dry Tools: Carbide Top Rake 6° (+/-2°)-Side/Front 8° (+/-2°) Feed rate (rough): Travel speed 0020 Rough cut 0.020-0.060 Feed rate (finishing): Travel speed 0.010 Finish cut 0.010 Polishing: Use 400 to 650 emery paper wet. Material should polish to a 25-50micron finish.

### CURE

Working time is 45 minutes at 24°C functional (75%) cure is achieved in 16 hours at 24°C. For maximum physical properties, heat cure for 4 hours at 34°C after curing at room temperature of 2.5 hours.

### TECHNICAL FEATURES

Colour	Grey when mixed
Mixed Viscosity	Paste
% Solids by Volume	100
Cured Density	2.33 gm/cc
Cure Shrinkage ASTM D2566	0.0006 in/in
Specific Volume	11.9 in/lb
Working Time	4-6 mins
Comprehensive Strength ASTM D695	8.260 PSI
Adhesive Tensile Strength EASTMD1002	2.800 PSI
Cured Hardness Shore D ASTM 2240	78-80
Dielectric Strength volts/mil ASTM D149	50-90
Coverage	48 sq.in/lb@ 1/4"
Temperature Range	-40°C - 121°C

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### CHEMICAL RESISTANCE

Kerosene	Very Good
Toluene	Fair
Ammonia	Very Good
10% Sulphuric acid	Very Good
10% Hydrochloric acid	Very Good
10% Sodium Hydroxide	Very Good
Methanol	Unsatisfactory
Chlorinated solvent	Very Good

### STORAGE

Store product in the unopened container in a dry area out of direct sunlight. Storage between 5°C and 25°C. If stored properly, this product has a shelf life of 12 months.

### PACKAGING FORMAT

Cartridge.....25ml, 50ml  
Clam.....25ml

### HEALTH & SAFETY

This technical information sheet does not constitute a Safety Data Sheet (SDS). Before using this product ensure you have read and fully understood this products SDS

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