



# Technical Data Sheet

## Auto013 Metal Set Epoxy

### PRODUCT DESCRIPTION

Bondloc Metal Set Epoxy is a steel-filled epoxy for general maintenance and repairs.

### APPLICATIONS

For filling, rebuilding and bonding metal surfaces. Bonds most metals and concrete. For repairs, worn or fatigued metals, patch castings, making of jigs and fixtures rebuilds pump and valve bodies, restores bearing journals and races. Applies easily, needs no special tools. Machinable. Resistant to most chemicals. Working time is 15 minutes at 24°C functional (75%) cure is achieved in 6 hours.

### USEFUL HINTS/NOTES

- Applies easily, needs no special tools.
- Bonds most metals and other materials
- Machinable
- Resistant to most chemicals
- Qualified under Mil. Spec DOD-C-24176B

### 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 oils and rough

1. Remove all oils, dirt and grease by means of a strong cleaner Bondloc B7063
2. Roughen the surface by grit blasting (8-40mesh grit) or grinding. A3-5mil profile for most applications.
3. All abrasive preparation should be followed by another clean to remove any remnants from that process.
4. Ideal application temperature is 13°C - 32°C. Under cold conditions, heating the repair area to 38°C - 43°C is recommended.

5. Mix equal quantities of the two parts and stir thoroughly until a uniform colour is obtained. Where a static mixing nozzle is supplied the 2 parts will be mixed correctly upon dispensing.
6. Spread 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.
7. 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 0.020 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 16hours at 24°C. For maximum physical properties, heat cure for 4 hours at 34°C after curing at room temperature for 2.5 hours

### STORAGE

Stored under dry conditions in closed containers between 5 and 25°C B2013 will have a shelf life of 12 months.

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**PRECAUTIONS:** This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Safety Data Sheets (SDS) for this and all other products being used are understood by all persons who will work with the product. Warranty: All products purchased from or supplied by Bondloc are subject to terms and conditions set out in the contract. Bondloc warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Bondloc is considered accurate but is furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Bondloc makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.





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### 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

### 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

### PACKAGING FORMAT

25ml & 50ml

### 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

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