

3M™ Scotchkote™ Epoxy Metal Repair SG 527

Data Sheet and Application Guide

Product Description

Scotchkote Epoxy Metal Repair SG 527 is a specially packaged rapid curing synthetic metal repair compound for on site repairs to metal components such as leaking pipes, tanks, ducts, radiators etc.

Product Features

- Simple to use, only requiring simple hand mixing to activate reaction between the concentrically packed components.
- Designed for application by gloved hand, putty knife or spatula.
- Can be applied to any damaged metal surface, plus glass, fibreglass and other composite surfaces.
- Designed for rapid repairs to cracked casting, leaking pipes, tanks, flanges etc minimising downtime.
- Exhibits excellent adhesion to correctly prepared metal surfaces.

General Application Steps

1. Remove oil, grease and loosely adhering deposits.
2. Abrade by appropriate means to create a coarse profile.
3. Apply Scotchkote Epoxy Metal Repair SG 527 to the required thickness.
4. Allow to cure.
5. Visually inspect the system for defects.
6. Repair any defects.
7. Carry out machining as required.

Properties

Property	Value
Colour	Grey
Ratio	Supplied ready for use
Drying & Cure times at 20°C (68°F)	
Useable life	6 mins
Initial Set	15 mins
Hard Dry for machining	30 mins
Full Mechanical Cure	2 hours
Volume Solids	100%
Volume Capacity	66cc (4 cu ins) per unit
Performance Data	
Flexural Strength	23Mpa (3250 psi) (ASTM D790)
Compressive Strength	35 Mpa (5000 psi) (ASTM D695)
Heat Distortion Temperature	40°C (96°F) (ASTM D648)
Tensile Shear Adhesion	4.5Mpa (650 psi) on grit blasted steel (ASTM D1002)
Maxium Operating Temperature	120°C (248°F) - Dry 70°C (158°F) - Wet
Shore D Hardness	85 (ASTM D2240)
Corrosion Resistance	5000 hours (ASTM B117)



Application Procedures for 3M™ Scotchkote™ Epoxy Metal Repair SG 527

Surface Preparation

Heavy contamination due to oil or grease must be removed using 3M™ Scotchkote™ Cleaner 020.

All loose material, rust and surface contaminants, including existing coatings, must be removed and the surface roughened by using an angle grinder, needle gun or abrasive blasting. Where grinding is used, the surface should be cross-scored to improve adhesion. Care must be taken, when angle grinding, to avoid polishing rather than roughening metal surfaces.

Surfaces should be carefully degreased again using Scotchkote Cleaner 020. Cloths should be frequently changed to avoid spreading contamination. On deeply pitted surfaces or porous castings, the cleaner should be worked into the surface by brush and washed off using excess cleaner.

Surfaces which must remain in position during application but must not adhere to Scotchkote Epoxy Metal Repair SG 527 must be coated with 3M™ Scotchkote™ Release Agent 035.

Product Mixing

Before mixing, hands should be treated with a suitable barrier cream or lightweight disposable gloves should be worn.

Sufficient product to complete the repair should be cut or broken from the stick. This should then be twisted and kneaded until a uniform colour is achieved with no streaks.

Handling and Safety Precautions

Read all health hazard, precautionary and first aid statements found in the Material Safety Data Sheet, and/or product label prior to handling or use.

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The two components are colour coded to ensure complete mixing is achieved when the colour is uniform.

Scotchkote Epoxy Metal Repair SG 527 should be used within 6 minutes of mixing at 20°C (68°F).

These times will be reduced at higher temperatures or extended at lower temperatures.

Application Procedures

Prepared surfaces should be dry. The mixed material should be pressed firmly onto the prepared area, working the material into any cracks and surface defects.

When Scotchkote Epoxy Metal Repair SG 527 is being used to repair leaking pipes, the flow through the pipe should be discontinued until the repair is made and the product is set. Any leaking fluid must be wiped from the prepared surface to render the surface as dry as possible before undertaking the repair.

All equipment must be cleaned IMMEDIATELY after use with Scotchkote Cleaner 020.

Once the Scotchkote Epoxy Metal Repair SG 527 has reached initial set the material can be separated from surfaces treated with Scotchkote Release Agent 035.

Packaging and Storage

Supplied in 10 x 125gm packs

Use within 5 years of date of manufacture. Store in original sealed containers at temperatures between 5°C and 30°C.

Ordering Information/Customer Service

For ordering, technical and product information or to request a copy of the Material Safety Data Sheet, call +44 (0)1609 780170 or fax +44 (0)1609 783762 (Sales) or 788718 (Technical).

For emergencies, please contact +44 (0)1344 858000.

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SG527-0113