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Product Description Sheet

Fixmaster® Steel Putty

Maintenance, Repair & Operations, August 2000

PRODUCT DESCRIPTION

LOCTITE® Fixmaster® Steel Putty is a steel reinforced, two-part epoxy that cures to a metal-like finish and can be machined, drilled, tapped or filed under typical dry service temperatures of -29° to +107°C (-20° to +225°F).

Advantages:

- Won't sag or shrink – can be applied to over-head and vertical surfaces and conforms to odd shapes.
- Rebuilds worn parts fast, reduces downtime.
- High steel content – cure to a metal-like finish.
- Superior adhesion – forms a solid bond to steel, cast iron, stainless steel, concrete, and clean and abraded bronze, copper, and aluminum.

TYPICAL APPLICATIONS

- Sealing cracked castings, tanks, vessels, and valves.
- Patching non-structural defects in steel castings.
- Making models and jigs for holding odd shaped parts.
- Making metal dies.
- Resurfacing worn air seals.
- Filling cavitated areas.

DIRECTIONS FOR USE

1. Clean and abrade application surface. Grit blast or grind for best adhesion.
2. Mix 2.5 parts resin to 1 part hardener by volume or transfer entire kit onto a clean and dry mixing surface and mix material vigorously until a uniform color is obtained.
3. Apply fully mixed material to prepared surface.
4. At 25°C (77°F), working time of one pound of material is 30 minutes, and cure time is 6 hours.

TECHNICAL TIPS FOR WORKING WITH EPOXIES

Working time and cure time depends on temperature and mass:

- The higher the temperature, the faster the cure.
- The larger the mass of material mixed, the faster the cure.

To speed the cure of epoxies at low temperatures:

- Store epoxy at room temperature.
- Pre-heat repair surface until warm to the touch.

To slow the cure of epoxies at high temperatures:

- Mix epoxy in small masses to prevent rapid curing.
- Cool resin/hardener component(s).

PROPERTIES OF UNCURED MIXED MATERIAL

Mixture	Typical Value
Appearance	Metallic Grey, Thixotropic paste
Mix Ratio (R:H) by Volume	2.5:1
by Weight	6.25:1
Coverage	278 cm ² @ 6 mm thick per 1 lb. kit 43 in ² @ ¼" thick per 1 lb. kit

TYPICAL CURING PERFORMANCE

Curing Properties

(@ 25°C unless noted)

Working Life, minutes	Typical Value 30
Cure Time, hours	6

TYPICAL PROPERTIES OF CURED MATERIAL

(@ 25°C unless noted)

Physical Properties	Typical Value
Compressive Strength, ASTM D695, psi (N/mm ²)	11,100 (76.6)
Shear Strength ASTM D1002, psi (N/mm ²)	1,700 (11.7)
.005" gap, acid etched aluminum	
Tensile Strength, ASTM D638, psi (N/mm ²)	4,900 (33.4)
Hardness, ASTM D-2240, Shore D	85

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Ordering Information

Part Number	Container Size
99912	25 lb. kit
99913	1 lb. kit
99914	4 lb. kit

Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container. For further specific shelf life information, contact your local Technical Service Center.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

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PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.
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