



LOCTITE[®] Fixmaster[®] Fast Set Steel Putty

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PRODUCT DESCRIPTION

LOCTITE[®] Fixmaster[®] Fast Set Steel Putty provides the following product characteristics:

Technology	Epoxy
Appearance (Resin)	Steel Colored Paste ^{LMS}
Appearance (Hardener)	Gray ^{LMS}
Mix Ratio, by volume - Resin : Hardener	1 : 1
Mix Ratio, by weight - Resin : Hardener	100 : 56.5
Cure	Room temperature cure
Application	Industrial maintenance
Specific Benefit	<ul style="list-style-type: none"> • Hardens in ten minutes • Non sagging • Steel filled system - cures to metal-like finish • Bonds to steel, cast iron, stainless steel, concrete, copper, aluminum, and clean and abraded bronze

LOCTITE[®] Fixmaster[®] Fast Set Steel Putty is a fast curing, steel reinforced, two-part epoxy designed for making fast and curable repairs to a variety of metals. This product is typically used in applications with an operating range of -29 °C to +93 °C. Typical applications include fuel and gas tank holes, stripped threads, cracked battery cases, leaking storage tanks, and leaks on pipes and elbows.

TYPICAL PROPERTIES OF UNCURED MATERIAL

Resin:

Weight Per Gallon, lbs/gal 21.7 to 22.6^{LMS}

Hardener:

Weight Per Gallon, lbs/gal 12.4 to 12.8^{LMS}

Mixed:

Coverage 371 cm² @ 6 mm thick per tube

Flash Point - See MSDS

TYPICAL CURING PERFORMANCE

Curing Properties

Cure Time @ 25 °C, minutes 10

Working life, minutes 3

TYPICAL PROPERTIES OF CURED MATERIAL

Cured @ 25 °C except where noted

Lap Shear Strength, ISO 4587:

Aluminum (acid etched), 0.05 mm gap N/mm² 13.8 (psi) (2,000)

Compressive Shear Strength, ISO 10123:

Steel N/mm² 74.5 (psi) (10,800)

Tensile Strength, ISO 6922:

Steel	N/mm ²	31.7
	(psi)	(4,600)

Physical Properties:

Shore Hardness, ISO 868, Durometer D 80

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).

Directions for use

1. Clean and abrade application surface. Sandblast or grind for best adhesion.
2. Mix 1 part resin to 1 part hardener by volume or transfer entire kit onto a clean and dry mixing surface and mix together until uniform in color. (If resin and hardener temperatures are 15°C or below, preheat resin only to about 32°C, but not to exceed 38°C.)
3. Apply the mixed adhesive to properly prepared surfaces. Apply a film of adhesive and apply light pressure evenly to spread the adhesive over as much surface as possible for best results.
4. At 25°C, working time of 1lb of material is 3 minutes, and cure time is 10 minutes.

Technical Tips for Working With Epoxies

Working time and cure depends on temperature and mass:

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

Loctite Material Specification^{LMS}

LMS dated November 21, 2000 (Resin) and LMS dated May 22, 2001 (Hardener). Test reports for each batch are available for the indicated properties. LMS test reports include selected QC test parameters considered appropriate to specifications for customer use. Additionally, comprehensive controls are in place to assure product quality and consistency. Special customer specification requirements may be coordinated through Henkel Loctite Quality.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 8 °C to 21 °C. Storage below 8 °C or greater than 28 °C can adversely affect product properties.

Material removed from containers may be contaminated during use. Do not return product to the original container. Henkel Corporation cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Conversions

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

Note

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Reference 0.0