

Your Source for
**REPAIRING,
REBUILDING
& RESTORING**



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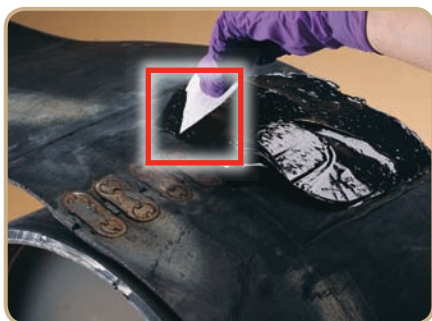
CHOOSING A REPAIR EPOXY

When choosing a repair epoxy, there are several factors to consider, the most important of which is substrate. Loctite® Fixmaster® repair epoxies are designed to optimize performance on various substrates. The coefficient of thermal expansion differs from one metal to the next; matching the correct product to each substrate will make a big impact on the integrity of the repair. The application and service environment are important to consider because machinability and corrosion resistance differ between the products.

WHAT IS THE PROPER SURFACE PREPARATION FOR REPAIR EPOXIES?

A properly prepared surface is one that has been cleaned, dried and abraded. Substrates should be free from contamination, including oils, grease, dust, etc. It is also important that a surface is dry* before working with a repair epoxy, because moisture on the surface can interfere with the curing process. The final component is to abrade the surface, which provides an increased surface area for bonding. When working with metals, the surface should be abraded to a near-white metal finish, which also helps to ensure that all surface corrosion is removed.

* Loctite® Fixmaster® Wet Surface Repair Putty and Loctite® Fixmaster® Underwater Repair Epoxy have been specially formulated to cure in wet or underwater applications.



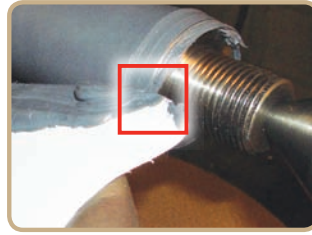
Your Source **BELT REPAIR & URETHANES SELECTOR GUIDE**

WHAT TYPE OF APPLICATION IS NEEDED?

General Rubber Repair	Belt Repair
Castable	Short-Term
Loctite® Fixmaster® Flex 80™ Liquid Item # 97413 1 lb. kit 97412 6 lb. kit	Loctite® Fixmaster® Instant Belt Repair Item # 37719 1 lb. kit
Trowelable	Long-Term
Loctite® Fixmaster® Flex 80™ Putty Item # 97423 1 lb. kit 97422 6 lb. kit	FAST RETURN TO SERVICE
	Loctite® Fixmaster® Rapid Rubber Repair Item # 96677 400 ml kit 96675 400 ml cartridge 96676 150 ml coaxial cartridge
	LONGER WORKING TIME
	Loctite® Fixmaster® Flex™ Conveyor Belt Repair Kit Item # 98693 1 lb. kit

Loctite® Adhesives and Sealants Product Specialists are available to assist you. For application assistance, call **1-800-LOCTITE (562-8483)**; *within Canada, call 1-800-263-5043*; or, contact us through the web at www.henkelna.com/loctite.

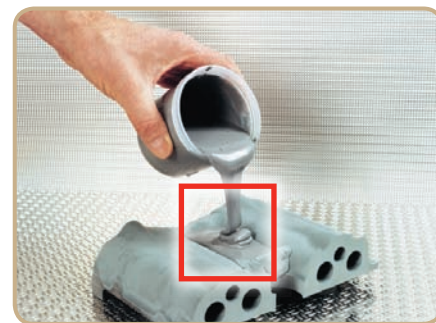
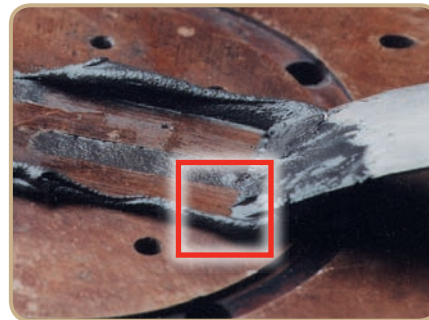
STRAIGHT FROM *The Source*



Your Source MAINTENANCE & REPAIR EPOXIES SELECTOR GUIDE

WHAT TYPE OF APPLICATION IS NEEDED?

Metal Repair	Specialty	Kneadable Sticks
<p>HIGH PERFORMANCE</p> <p>Loctite® Fixmaster® Superior Metal</p> <p>Item # 97473 1 lb. kit 40900 4 kg kit</p>	<p>Loctite® Fixmaster® Wet Surface Repair Putty</p> <p>Item # 96583 1 lb. kit</p>	<p>Loctite® Fixmaster® Metal Magic Steel™</p> <p>Item # 98853 4 oz. stick</p>
<p>STEEL</p> <p>Loctite® Fixmaster® Steel Putty or Liquid</p> <p>Item # Putty – 99913 1 lb. kit Putty – 99914 4 lb. kit Putty – 99912 25 lb. kit Liquid – 97483 1 lb. kit Liquid – 97484 4 lb. kit</p>	<p>Loctite® Fixmaster® 2000° Putty</p> <p>Item # 95724 8 oz. can</p>	<p>Loctite® Fixmaster® Concrete Repair Epoxy</p> <p>Item # 39366 4 oz. stick</p>
<p>STAINLESS STEEL</p> <p>Loctite® Fixmaster® Stainless Steel Putty</p> <p>Item # 97443 1 lb. kit</p>		<p>Loctite® Fixmaster® Underwater Repair Epoxy</p> <p>Item # 82093 4 oz. stick</p>
<p>ALUMINUM</p> <p>Loctite® Fixmaster® Aluminum Putty or Liquid</p> <p>Item # Putty – 97463 1 lb. kit Liquid – 97453 1 lb. kit</p>		
<p>FAST SETTING</p> <p>Loctite® Fixmaster® Fast Set Steel Putty</p> <p>Item # 39917 1 lb. kit</p>		



Your Source for **REPAIRING,
REBUILDING & RESTORING**
**BELT REPAIRS
& URETHANES**

Belt Repair:

- Provides durable, tough, and flexible repairs of conveyor belts and other damaged rubber equipment quickly and easily

Urethanes:

- Can be troweled, cast or brush-applied to rebuild or protect critical operating equipment
- Provides protection from impact, abrasion and corrosion
- Non-shrinking and unaffected by oil, grease and water
- Maximum adhesion and product reliability ensured by use of recommended accessories



[Belt Repair]

Loctite® Fixmaster® Rapid Rubber Repair

Our premium quality belt repair product is designed to repair conveyor belts and other damaged rubber equipment quickly and easily. Repairs will have the same durability and flexibility as the belt. The 400 ml cartridge requires the use of a Loctite® Rapid Rubber Repair Dispenser. The 400 ml kit contains a 400 ml cartridge, etching agent, cleaner, brushes and plastic trowels.

- Item # 96677 400 ml kit
- 96675 400 ml cartridge
- 96676 150 ml coaxial cartridge

Fixmaster® Rapid Rubber Repair Dispenser

Handheld, manually operated dispenser designed specifically for use with Loctite® Fixmaster® Rapid Rubber Repair.

Description:

- Two-part adhesives
- 400 ml cartridges
- Medium-to-high viscosity range

- Item # 1372751 Universal Fixmaster® Dispenser



ADDITIONAL RESOURCES

Loctite® Fixmaster® Flex™ Conveyor Belt Repair Kit

Makes long-lasting belt repairs. Recommended for applications where speed of application is not critical. Cures in 8-12 hours. Kit includes resin, hardener, cleaner, etching agent, brushes and plastic trowels.

- Item # 98693 1 lb. kit

Loctite® Fixmaster® Instant Belt Repair

A single-component, heat-curing material for fast, temporary belt repairs. Requires no priming. Equipment can be operated in 30 minutes.

- Item # 37719 1 lb. kit

[General Rubber Repair]

Loctite® Fixmaster® Flex 80™ Putty

A trowelable, two-part urethane for rebuilding and repairing rubber parts and linings, providing impact-, abrasion- and corrosion-resistant protection.

- Item # 97423 1 lb. kit
- 97422 6 lb. kit

Loctite® Fixmaster® Flex 80™ Liquid

A castable, two-part urethane for making molds, fixtures, expansion joints and non-scratching holding fixtures.

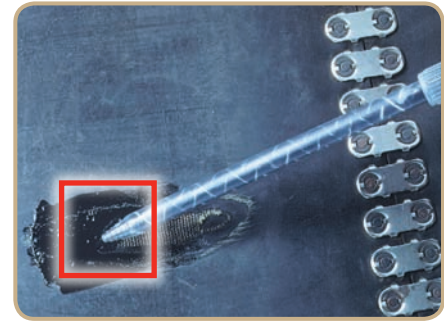
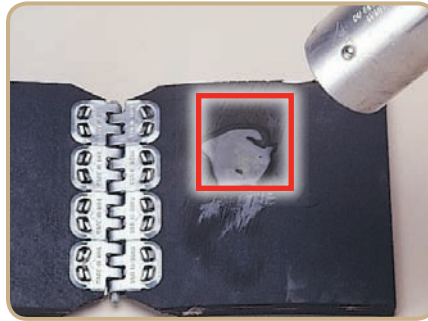
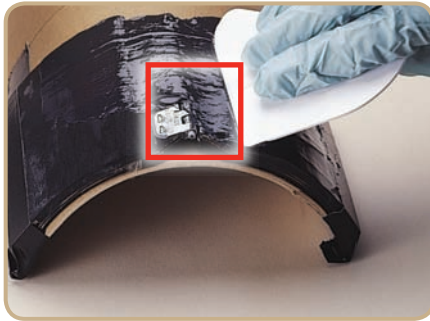
- Item # 97413 1 lb. kit
- 97412 6 lb. kit

[Loctite® Fixmaster® Belt Repair & Urethane Application Chart]

LOCTITE® PRODUCT	CASTING MOLDS, FIXTURES, PARTS	CONVEYOR BELT REPAIR (LONG-TERM)	CONVEYOR BELT REPAIR (TEMPORARY)	COATING IMPELLERS, FEEDER BOWLS	CHUTES, HOPPERS, DEFLECTION PLATES	REBUILDING RUBBER PARTS	LINING PUMPS	FORMING EXPANSION JOINTS
FIXMASTER® RAPID RUBBER REPAIR		▲					△	△
FIXMASTER® FLEX™ CONVEYOR BELT REPAIR KIT		△						
FIXMASTER® INSTANT BELT REPAIR			▲					
FIXMASTER® FLEX 80™ PUTTY	△				▲	▲	▲	
FIXMASTER® FLEX 80™ LIQUID	▲			△				▲

△ Good Choice ▲ Preferred Choice

Sources REVEALED



[Applications]

- Pump
- Gearbox
- Concrete Repair
- Conveyor Systems
- Shaft Repair

[Industries]

- Mining
- Wastewater
- Power Generation

- Food Processing
- Pulp and Paper
- Beverage

APPLICATIONS & INDUSTRIES

[Loctite® Belt Repair & Urethane Properties Chart]

	LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR	COVERAGE (IN. ² AT 1/4 IN. THICKNESS)	MAXIMUM OPERATING TEMPERATURE (°F)	ADHESIVE TENSILE STRENGTH (psi)	% ELONGATION	HARDNESS (SHORE A)	WORKING TIME (MINUTES)	FUNCTIONAL CURE (HOURS)	MIX RATIO BY VOLUME (RESIN: HARDENER)	MIX RATIO BY WEIGHT (RESIN: HARDENER)	AGENCY APPROVALS
BELT REPAIR	FIXMASTER® RAPID RUBBER REPAIR	96677 96675 96676	400 ml kit 400 ml cartridge 150 ml coaxial cartridge	Black	88 88 33	180	1,300	360	82	1	2	1:1	N/A	N/A
	FIXMASTER® FLEX™ CONVEYOR BELT REPAIR KIT	98693	1 lb. kit	Black	94	180	1,500	350	87	10	8	100:40	72:28	N/A
	FIXMASTER® INSTANT BELT REPAIR	37719	1 lb. kit	Yellow	115	150	400	650	65	N/A	30 min.	N/A	N/A	N/A
GENERAL RUBBER REPAIR	FIXMASTER® FLEX 80™ PUTTY	97423 97422	1 lb. kit 6 lb. kit	Black	94 564	180	1,500	350	87	10	8	100:40	72:28	ABS
	FIXMASTER® FLEX 80™ LIQUID	97413 97412	1 lb. kit 6 lb. kit	Black	27 in. ³ 162 in. ³	180	1,800	350	87	20	8	100:13.3	77:23	N/A

Properties based on mixing a 1 lb. unit at 77°F, seven days cure.

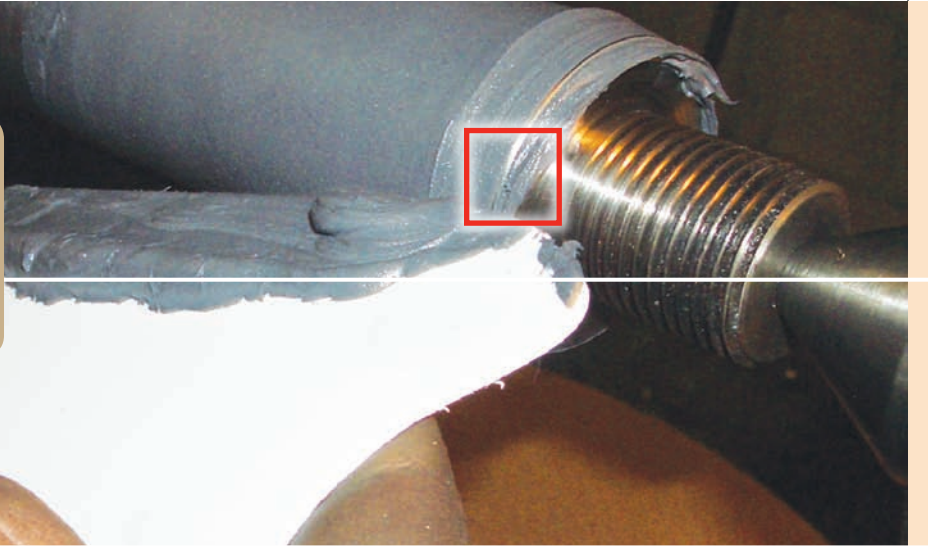
[Loctite® Belt Repair Accessories Chart]

HELPFUL HINTS

- Loctite® Fixmaster® Instant Belt Repair is a hot melt adhesive and requires heat for application.
- Loctite® Fixmaster® Flex 80™ Liquid can be used as a flexible joint sealant where a black color is desired.

	LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE DESCRIPTION	COVERAGE	COLOR
BELT REPAIR ACCESSORIES	FLEX™ METAL PRIMER PROMOTES ADHESION TO METAL PARTS	98471	3.3 fl. oz. can	190 in ² or approximately 1 can of each product for 2 lbs. of urethane	Clear
	ETCHING AGENT ENHANCES BONDS TO RUBBER	99626	3 fl. oz. bottle		Clear
	FLEX™ CLEANER CLEANS & PRIMES SURFACES	39636	4 fl. oz. can	N/A	Clear
	FIXMASTER® RAPID RUBBER REPAIR DISPENSER	1372751	Required for use with 400 ml cartridge of Loctite® Fixmaster® Rapid Rubber Repair (Item Number 1372751 is not included in the 96677 kit and must be ordered separately.)		
	FIXMASTER® RAPID RUBBER REPAIR STATIC MIXERS	39633	Packaged 6/bag – for mixing and dispensing Loctite® Fixmaster® Rapid Rubber Repair in a 400 ml cartridge		

Your Source for **REPAIRING,
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**MAINTENANCE &
REPAIR EPOXIES**



[Epoxy Sticks]

Source's PICK

**Loctite® Fixmaster®
Metal Magic Steel™**

Steel epoxy in stick form. Cut off a section, knead and apply to leaking pipes or damaged equipment. Cures in 10 minutes. NSF 61 approved for potable water applications.

Item # 98853 4 oz. stick

**Loctite® Fixmaster®
Concrete Repair Epoxy**

Enables permanent repairs to concrete and masonry. Convenient stick contains pre-measured portions of activator and base. Once cured, it can be tapped, drilled, screwed, sawed, filed or painted, and will have an appearance and texture similar to concrete.

Item # 39366 4 oz. stick

**Loctite® Fixmaster®
Underwater Repair Epoxy**

This putty-like material is ideal for plumbing, irrigation and marine applications because it is unaffected by chlorinated or salt water. Will stick to wet surfaces. Ideally suited for underwater repairs. Sets in 15 minutes.

Item # 82093 4 oz. stick

Your Source for **SUPERIOR METAL**
Loctite® Fixmaster® Superior Metal 6-Step Process



STEP 1:
Clean completely



STEP 2:
Gather product



STEP 3:
Prepare product



STEP 4:
Mix completely



STEP 5:
Apply



STEP 6:
Set

- The working time of an epoxy is the time required for the viscosity to double. Once the viscosity has doubled, epoxies are generally very hard to work with, so jobs should be completed before this time.
- Increasing the temperature of the product or substrate can increase the cure speed of an epoxy and reduce the viscosity initially.

HELPFUL HINTS



Sources REVEALED

[Applications]

- Pump
- Gearbox
- Concrete Repair
- Conveyor Systems
- Shaft Repair

[Industries]

- Mining
- Wastewater
- Power Generation

APPLICATIONS & INDUSTRIES

[Pourable Metal-Filled Epoxies]

Loctite® Fixmaster® Steel Liquid

Pourable and self-leveling, steel-filled epoxy. Ideal for casting or making molds. Works well to fill hard-to-reach areas. Can be machined when cured. Sets in 25 minutes.

Item # 97483 1 lb. kit
97484 4 lb. kit

Loctite® Fixmaster® Aluminum Liquid

Similar to Loctite® Fixmaster® Steel Liquid, but aluminum-filled. Sets in 20 minutes.

Item # 97453 1 lb. kit

[Trowelable Metal-Filled Epoxies]

Source's PICK

Loctite® Fixmaster® Superior Metal

Non-rusting, ferro-silicone-filled epoxy. Extremely high compressive strength and wear resistance. Ideal for rebuilding worn surfaces exposed to harsh environments. Can be machined, drilled and tapped in 6-8 hours. For final finish cuts, let the product cure for 24 hours and use carbide tooling. Spreadable putty. Sets in 20 minutes.

Item # 97473 1 lb. kit
40900 4 kg kit

Loctite® Fixmaster® Steel Putty

Non-slumping, two-part, steel-filled putty. Ideally suited for rebuilding steel surfaces. Can be machined when cured. Sets in 30 minutes.

Item # 99913 1 lb. kit
99914 4 lb. kit
99912 25 lb. kit

Loctite® Fixmaster® Aluminum Putty

Similar to Loctite® Fixmaster® Steel Putty, but aluminum-filled to better match the coefficient of thermal expansion of aluminum. Sets in 20 minutes.

Item # 97463 1 lb. kit

Loctite® Fixmaster® Stainless Steel Putty

Similar to Loctite® Fixmaster® Steel Putty, but stainless steel-filled to better match the coefficient of thermal expansion of stainless steel. Sets in 20 minutes.

Item # 97443 1 lb. kit

Loctite® Fixmaster® Fast Set Steel Putty

Faster setting version of Loctite® Fixmaster® Steel Putty. Sets in 3 minutes.

Item # 39917 1 lb. kit

[High Performance]

Loctite® Fixmaster® Fast Set Steel Epoxy

Cartridge-based, steel-filled epoxy. Makes fast, cost-effective repairs. Easy to use and easy to apply. Ideal for metal parts that must be back in service quickly. Can be machined when cured. Requires the handheld dispenser (Item No. 98472). One mix nozzle comes included with the cartridge. Sets in 3 minutes.

Item # 96604 50 ml cartridge

Loctite® Fixmaster® Wear Resistant Putty

Ceramic fibers give this trowelable putty excellent wear- and abrasion-resistant properties. Cures to a smooth, low friction surface. For surfaces exposed to wear, erosion and cavitation.

Item # 98742 1 lb. kit
98743 3 lb. kit

[Specialty Products]

Loctite® Fixmaster® Wet Surface Repair Putty

Use this unique, trowelable epoxy to repair and rebuild wet, even underwater surfaces. Bonds to most metals, concrete and some plastics.

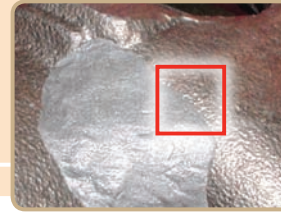
Item # 96583 1 lb. kit

Loctite® Fixmaster® 2000° Putty

Single-component putty designed to fill and restore damaged metal and fill cracks in environments that will see 2000°F. Water-based and nontoxic. Typical applications include header, manifold and cast iron repair.

Item # 95724 8 oz. can

Your Source for REPAIRING,
REBUILDING & RESTORING
**MAINTENANCE &
REPAIR EPOXIES**



[Loctite® Fixmaster® Maintenance & Repair Epoxies Properties Chart]

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR	COVERAGE	MAXIMUM TEMPERATURE† (°F)	COMPRESSIVE STRENGTH (psi)†	TENSILE SHEAR STRENGTH† (psi)	HARDNESS (SHORE D)	WORKING TIME	FUNCTIONAL CURE	MIX RATIO BY VOLUME	MIX RATIO BY WEIGHT	AGENCY APPROVALS
EPOXY STICKS	FIXMASTER® METAL MAGIC STEEL™*	98853 4 oz. stick	Grey	16 in. ^{2**}	250	12,000	2,500	80	3 minutes	10 minutes	N/A	N/A	NSF 61
	FIXMASTER® CONCRETE REPAIR EPOXY	39366 4 oz. stick	Grey	16 in. ^{2**}	250	12,000	600	80	4 to 7 minutes	10 minutes	N/A	N/A	N/A
	FIXMASTER® UNDERWATER REPAIR EPOXY§	82093 4 oz. stick	White	16 in. ^{2**}	300	12,000	900	70	15 minutes	30 minutes	N/A	N/A	CFIA
POURABLE	FIXMASTER® STEEL LIQUID*	97483 97484 1 lb. kit 4 lb. kit	Grey	13 in. ³ 52 in. ³	225	13,500	6,000	86	25 minutes	6 hours	4:1	9.5:1	ABS, CFIA, NEHC, NAVSEA
	FIXMASTER® ALUMINUM LIQUID*	97453 1 lb. kit	Aluminum	17 in. ³	200	17,000	6,000	85	20 minutes	6 hours	5:1	9:1	ABS, CFIA, NEHC, NAVSEA
TROWELABLE	FIXMASTER® SUPERIOR METAL*	97473 40900 1 lb. kit 4 kg kit	Dark Grey	0.25 ft. ^{2**} 2.2 ft. ^{2**}	250	18,000	5,500	90	20 minutes	6 hours	4:1	7.25:1	CFIA
	FIXMASTER® STEEL PUTTY*	99913 99914 99912 1 lb. kit 4 lb. kit 25 lb. kit	Grey	0.3 ft. ^{2**} 1.2 ft. ^{2**} 7.5 ft. ^{2**}	225	11,100	4,900	85	30 minutes	6 hours	2.5:1	6.25:1	ABS, CFIA, NEHC, NAVSEA
	FIXMASTER® ALUMINUM PUTTY*	97463 1 lb. kit	Aluminum	0.5 ft. ^{2**}	200	11,300	4,000	87	20 minutes	6 hours	4:1	6.3:1	ABS, CFIA, NEHC, NAVSEA
	FIXMASTER® STAINLESS STEEL PUTTY*	97443 1 lb. kit	Grey	0.25 ft. ^{2**}	225	12,000	4,600	85	20 minutes	6 hours	4:1	9:1	ABS, CFIA, NEHC, NAVSEA
	FIXMASTER® FAST SET STEEL PUTTY*	39917 1 lb. kit	Grey	0.4 ft. ^{2**}	200	10,800	4,600	80	3 minutes	10 minutes	1:1	1.8:1	ABS, CFIA, NEHC, NAVSEA

LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	COLOR (CURED)	MAXIMUM TEMPERATURE† (°F)	TENSILE SHEAR STRENGTH (psi)	WORK LIFE	FIXTURE TIME‡	FULL CURE (HOURS)	AGENCY APPROVALS
HIGH PERFORMANCE	FIXMASTER® FAST SET STEEL EPOXY*	96604 50 ml cartridge	Grey	200	2,600	3 minutes	6 to 8 minutes	7	CFIA
	FIXMASTER® WEAR RESISTANT PUTTY*	98742 98743 1 lb. kit 3 lb. kit	Grey	225	4,900	30 minutes	1 hour	6	ABS, CFIA, NEHC, NAVSEA
SPECIALTY PRODUCTS	FIXMASTER® WET SURFACE REPAIR PUTTY*	96583 1 lb. kit	Grey	150	3,500	30 minutes	1 hour	18	ABS, NEHC, NAVSEA
	FIXMASTER® 2000° PUTTY*	95724 8 oz. can	Grey	2000	675	30 minutes	1 hour	7	N/A
APPLICATORS	MANUAL CARTRIDGE APPLICATOR	98472	Required for use with Loctite® Fixmaster® 50 ml cartridges. (Item No. 98455 is also required and must be ordered separately.) For more information on spare parts, nozzles and accessories, please visit www.equipment.loctite.com .						
	STATIC MIX NOZZLES	98455	Packaged 10/bag – for mixing and dispensing Loctite® Fixmaster® 50 ml cartridges. For more information on spare parts, nozzles and accessories, please visit www.equipment.com .						

ITEMS IN RED = Source's PICK

* Properties are based on mixing one lb. mass at 77°F, seven days cure.

‡ Time to reach handling strength.

** At 1/4 in. thickness.

§ Properties based on ultimate cure. Epoxy properties based on mixing 20 g mass at 77°F.

† Ultimate cure.

[Loctite® Fixmaster® Maintenance & Repair Epoxies Application Chart]

LOCTITE® PRODUCT	EMERGENCY METAL REPAIRS	CORROSION PROTECTION	REPAIRING PIPES & TANKS	REBUILDING SHAFTS, KEYWAYS & BEARINGS	REPAIRING THREADED PARTS	RESTORING TUBE SHEETS	PUMP REPAIR	REPAIRING ENGINE BLOCKS	FIXTURES & PROTOTYPES	REBUILDING IMPELLERS & VALVES	REPAIRING ALUMINUM PARTS	REPAIRING STAINLESS STEEL PARTS	FORMING MOLDS & FIXTURES	WET SURFACE REPAIRS
EPOXY STICKS	FIXMASTER® METAL MAGIC STEEL™	▲		△					▲				▲	△
	FIXMASTER® CONCRETE REPAIR EPOXY	△							△					■
	FIXMASTER® UNDERWATER REPAIR EPOXY	△		△										▲
POURABLE	FIXMASTER® STEEL LIQUID			▲		▲			△				▲	
	FIXMASTER® ALUMINUM LIQUID								▲		▲	△	▲	
TROWELABLE	FIXMASTER® SUPERIOR METAL		▲		▲	▲	▲	▲		▲				
	FIXMASTER® STEEL PUTTY			▲				▲		△			▲	
	FIXMASTER® ALUMINUM PUTTY		△							▲	▲	△		
	FIXMASTER® STAINLESS STEEL PUTTY		△							▲	△	▲		
	FIXMASTER® FAST SET STEEL PUTTY	▲		▲					△					

ITEMS IN RED = Source's PICK △ Good Choice ▲ Preferred Choice ■ Acceptable Choice

[Loctite® Fixmaster® Maintenance & Repair Epoxies Bonding Characteristics]

LOCTITE® PRODUCT	GAP FILLING	FAST CURE TIME	FERROUS METAL REPAIR	TOUGHENED FORMULATION	SHOCK RESISTANT	WATER RESISTANT	PLASTIC BONDING	RUBBER BONDING	METAL BONDING	SANDABLE FINISH	PAINTABLE FINISH
HIGH PERFORMANCE	FIXMASTER® FAST SET STEEL EPOXY	△	▲	▲					△	▲	■
	FIXMASTER® WEAR RESISTANT PUTTY	▲			▲	▲	△				■
SPECIALTY PRODUCTS	FIXMASTER® WET SURFACE REPAIR PUTTY	▲				▲					■
	FIXMASTER® 2000° PUTTY	▲		▲						■	■

△ Good Choice ▲ Preferred Choice ■ Acceptable Choice