



LOCTITE[®] Pipe Repair Kit

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PRODUCT DESCRIPTION

LOCTITE[®] Pipe Repair Kit provides the following product characteristics:

Technology	Epoxy
Appearance	Yellow impregnated tape ^{LMS}
Cure	Room temperature cure
Application	Industrial maintenance
Specific Benefit	<ul style="list-style-type: none"> Minimizes lost production time due to unscheduled shutdown Conforms to odd shapes Great pressure retention Pipes are back in service within an hour Does not require special training or personnel Superior adhesion - forms a solid bond to steel, cast iron, stainless steel, concrete, and clean and abraded bronze, copper and aluminum Stops leaks reinforces pipe couplings Adheres and cures under water Can be sanded and painted as required

LOCTITE[®] Pipe Repair Kit is recommended for reliable, temporary repairs of metal, plastic and composite pipes. It includes a urethane impregnated fiberglass tape, designed to make on-site pipe repairs in just minutes without the use of tools or specially trained personnel. The urethane impregnated fiberglass tape is activated by water and applied by simply wrapping it around the damaged area. Material cures in approximately 30 minutes to a durable finish. Also included in the LOCTITE[®] Pipe Repair Kit is a one-use size of Loctite[®] Metal Magic Steel[™] for filling holes and cracks prior to the application of the fiberglass tape. Used in combination, the fiberglass tape and epoxy stick provide a reliable and fast pipe repair system. Typical applications include sealing cracked castings, tanks, vessels, valves and pipes. It also repairs pipe joints and reinforces tanks, vessels, valves, joints and elbows. LOCTITE[®] Pipe Repair Kit should not be used on a pipeline that is carrying caustic, hazardous or otherwise harmful materials. This product is typically used in applications with an operating range of -29 °C to +121 °C.

NOTE: Urethane impregnated fiberglass tape and LOCTITE[®] Metal Magic Steel[™] are not approved for direct contact with potable water

TYPICAL PROPERTIES

Working Time @ 25 °C, minutes	3 to 4
Cure Time @ 25 °C, minutes	30
Maximum Pressure:	
50 mm diameter pipe with 3.2 mm diameter hole	N/mm ² 18.6 (psi) (2,700)

* Pressure rating depends on type of pipe and type of damage.

** Cure time is affected by the temperature of the application. Temperatures under 10 °C will result in a substantially longer cure time. Temperatures over 27 °C will result in a shorter cure time.

TYPICAL PERFORMANCE

Physical Properties:

Shore Hardness, ISO 868, Durometer D	84
Tensile Strength, ISO 527-2	N/mm ² 41.4 (psi) (6,000)

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

Read thoroughly before opening package

- Turn off pressure in pipeline and dry the area to be repaired.
- For best results, clean and prep the area thoroughly as follows: abrade the pipe with sandpaper or file to achieve a rough profile and clean the surface with an oil-free solvent. For maximum adhesion, the prepared area should be approximately 3 to 4 times the size of the damaged area.
- To halt low pressure leaks or fill cracks and voids, use the Loctite[®] Metal Magic Steel[™] epoxy stick included in the kit. The mechanical bond that is created in this step is critical to the performance of the repair system. Remove the wrapping from the Loctite[®] Metal Magic Steel[™] then simply mix and knead the epoxy stick until it is uniform in color. Press the mixed epoxy firmly into the crack, hole or void.
- While wearing gloves, open foil pouch and quickly activate the urethane impregnated fiberglass tape by soaking in room temperature water for 20 seconds before applying. *Please note that after pouch is opened, the tape will start to set when exposed to moisture in the atmosphere; therefore, it is important to work as quickly as possible.*



5. Apply the urethane impregnated fiberglass tape by firmly wrapping it around the pipe, overlapping itself and completely covering the damaged area. The pipe wrap covering must extend 5 to 10 cm beyond the repaired section of pipe. For a firm wrap, allow the tape to stretch or extend slightly as it is wrapped. Wrap the tape a minimum of 4 times around the pipe or build up 3-4 times the wall thickness of the pipe, whichever is greater. With gloved hands, keep working the urethane back into the tape while molding and pressing the tape until it has lost its initial tackiness.
6. The urethane impregnated fiberglass tape will be fully hardened in approximately 30 minutes, and the pipe can be returned to service within an hour.

NOTE: LOCTITE® Pipe Repair Kit is intended as a temporary repair and cannot replace permanent pipe. Severely damaged pipelines or repaired pipes carrying harmful materials should be replaced as soon as possible.

Loctite Material Specification^{LMS}

LMS dated April 11, 2002. 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 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 0.1