LOCTITE

1001 Trout Brook Crossing
Rocky Hill, CT 06067-3910
Telephone: (860) 571-5100
FAX: (860) 571-5465

Product Description Sheet

Fixmaster® High Performance Quartz

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PRODUCT DESCRIPTION

LOCTITE® Fixmaster® High Performance Quartz is a highly filled quartz epoxy system designed for restoring old concrete or for the maximum protection of new concrete under typical dry service temperatures of –29° to +66°C (–20° to +150°F). Areas damaged by chemical attack may be resurfaced with HPQ once the concrete has been adequately reconditioned to a natural, clean state. HPQ provides a highly resistant surface to concentrated acids, alkalis, and solvents. It is an easily applied, trowelable system that should be applied at a minimum ¼" build in order to provide maximum chemical resistance.

Advantages:

- Chemical resistant
- Non-shrinking
- Bonds to concrete

TYPICAL APPLICATIONS

- Chemical containment areas
- Repairing spalled areas and holes and cracks in floors
- Resurfacing ramps and stairs and chemical spill areas
- Grouting

DIRECTIONS FOR USE

To ensure optimum performance, the surface must be prepared correctly. Concrete must be cured for at least 30 days. Remove all grease, oils, and dirt by washing thoroughly. Remove all surface contaminants such as old coatings, loose concrete, dust by dry abrasive blasting, water blasting, scarifying or by thoroughly acid etching and rinsing. Prepared surface must be rough and porous with no excess water – dampness is acceptable.

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 the 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).

Primer:

1. The two component primer is packaged to the proper mix ratio and must be mixed thoroughly resulting in a clear solution.
2. Primer can be applied by brush, roller, squeegee, or spray to a uniform light coat 2-4 mils.
3. Working time of the primer is 45 minutes at 25°C (77°F).

Top Coat:

1. Topcoat must be applied within 4 hours after the primer.
2. Material must be between 21°C-32°C (70°F-90°F) to allow for proper mixing.
3. Thoroughly mix the topcoat resin and hardener.
4. Transfer the mix into a concrete mixer, gradually add the quartz and mix for 3-4 minutes. All quartz must be thoroughly wetted out.

Application:

1. The primer must be wet prior to applying HPQ topcoat. If area has dried – reprime.
2. HPQ must be applied a minimum thickness of 6mm (¼") at a minimum application temperature of 16°C (60°F). The higher the temperature, the easier the application.
3. Use a screed guide and rigid bar or a screed box not exceeding 1.2m (4 feet) in width and apply a minimum of 6mm (¼").
4. To finish use steel trowels. When working on a large area, a power trowel can be used. The area must be worked and all trowel marks removed before the end of working time.
5. Seams and cold joints should run parallel with traffic patterns.
6. Working time of the topcoat is 60 minutes at 25°C (77°F).

PROPERTIES OF UNCURED MATERIAL

Mixture	**Typical Value**
Appearance	Thick Gray Liquid
Mix Ratio (R:H) by Volume, Primer	100:61
by Volume, Topcoat	100:60 to 282 Filler
Coverage	1.4m^2 @ 6mm thick per 42 lb.kit
	15 ft^2 @ ¼" in thick per 42 lb. kit

TYPICAL CURING PERFORMANCE

Curing Properties (@ 25°C unless noted)	**Typical Value**
Working Life, minutes, Primer	45
Minutes, Topcoat	60 (1,000 g mass)
Cure Time, hours	24

TYPICAL PROPERTIES OF CURED MATERIAL (@ 25°C)

Physical Properties	**Typical Value**
Compressive Strength, ASTM D695, psi (N/mm^2)	12,000 (82.7)

CHEMICAL RESISTANCE

ACIDS	
10% acetic	2
20% acetic	3
10% hydrochloric	1
20% hydrochloric	1
37% hydrochloric	2
10% nitric	1
ALKALIS	
25% ammonium hydroxide	1
10% sodium hydroxide	1
20% potassium hydroxide	1
SOLVENTS	
Methanol	2
Xylene	1
Deionized Water	1
Trichloroethane	1
Toluene	2
Diesel Fuel	1
Ethanol	2

Compatibility Rating:
1 - long-term exposure
2 - intermittent exposure
3 - splash or spillage service - immediate chemical decontamination

Samples were cured seven days at 25°C (77°F). Testing solutions were at 25°C (77°F).

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
96495	42 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

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Loctite Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loctite Corporation's products. Loctite Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Loctite Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. One or more United States or foreign patents or patent applications may cover this product.