

HI MOD FIBER MATRIX #4550 LPL

MOISTURE INSENSITIVE HIGH MODULUS, HIGH STRENGTH, STRUCTURAL EPOXY

FOR INDUSTRIAL USE ONLY

HOW TO USE

SURFACE PREPARATION

All surfaces must be structurally sound, clean and free of dirt, dust, oil, grease or any contaminant that would adversely affect the bond. Surfaces may be dry or damp, but free of standing water. Epoxies generally bond very well to properly prepared concrete; it is essential that the surface to which the epoxy is to be applied be sound and clean. Dirt, oil, grease, laitance or other surface deposits can interfere with the bond of the epoxy to the structural substrate. All concrete surfaces must be cleaned to a minimum CONCRETE SURFACE PROFILE CSP 5, according to **International Concrete Repair Institute: Concrete Surface Profile Specifications**. It is necessary to determine the surface preparation requirements prior to the application of the epoxy. Weak, delaminated areas should be removed using chipping hammers, scarifiers, scabblers, hydro demolition; other techniques may be used especially where more extensive concrete removal is necessary. The method used to remove deteriorated concrete should not weaken or crack the surrounding sound concrete. Additional cleaning may be necessary to remove any debris remaining after the removal of unsound concrete. Sandblasting, shotblasting, a scabber, grinding or high-pressure water jet may be used to clean surface contaminants and prepare the surface to a minimum ICRI Concrete Surface Profile CSP 5. Oil-free compressed air may be used to remove any dust or debris immediately prior to the application of the epoxy.

STEEL

Sandblast to white metal finish with a minimum Surface Profile of 3 mils.

MIXING

The product is provided as a 3-gallon unit. Component A, epoxy resins, packaged in 2-gallon container, Component B, epoxy hardener, packaged in a 1-gallon container. The mixing ratio is 2 parts of Component A (Resin) to 1 part of Component B (Hardener) by Volume.

Remove the lids of both Components and stir each component separately with a clean stick. Select a clean container of a minimum capacity of 4 (four) gallons and maximum capacity of 7 1/2 (seven and a half) gallons. Container should have a flat wall and flat bottom. Pour the 2-gallon unit into this mixing container, scraping the sides and the bottom of the 2-gallon unit to remove all resin. Then pour the 1-gallon unit of the hardener into this mixing container, scraping the sides and the bottom to remove all hardener. Stir and mix until material is thoroughly blended. Mixing should be completed after 3 minutes of thorough blending. After thorough mixing, a uniform green color should be observed.

It is recommended, to eliminate problems of improper mixing, that you use two mixing containers. Mix thoroughly in one container. After you feel it is thoroughly mixed, scrape all the material from one container to the second container. After material has been placed in the second clean container, thoroughly mix for an additional 1 to 1 1/2 minutes.

With this double type of mixing, any material that might not have been thoroughly mixed from the sides or the bottom of the first container will be easily placed in the second container and thus will receive thorough mixing at that time. Mix only that quantity that can be used within its working time.

The importance of thorough mixing and blending cannot be over emphasized. The two components must be thoroughly mixed and mated. If you are mixing correctly, bubbles will be whipped into the mixture. Do not be concerned; this is a sign that you are mixing well. Improper mixing can result in soft or sticky spots.



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GUIDE FOR APPROXIMATE WORKING & TACK FREE SET TIMES AT SURFACE & PRODUCT TEMPERATURES AS INDICATED

TIME (Minutes) PRODUCT TEMP. (Initial temp. 74°F - 23.3°C) TACK FREE TIME (Minutes) PRODUCT TEMP. (Initial temp. 87°F - 30.6°C)

TACK FREE	3*	76°F (26.4°C)	3*	88° F (32.2°C)	8**	79°F (28.3°C)	8**	90°F (34.4°C)		
10	81°F (29.4°C)	5 Hrs	10	92°F (36.6°C)	5 Hrs	20	83°F (32.2°C)	5 Hrs	20	98°F (40.6°C)
4.5 Hrs	30	92°F (40.6°C)	4 Hrs	28	110°F (54.4°C)	3.75 Hrs	Gel	55	Gel	45

CHART NOTES

SUBSTRATE TEMPERATURE:

74°F (23.3°C) - a higher substrate temperature significantly improves the tack free time; a lower substrate temperature will significantly lengthen the tack-free time.

Higher Substrate Temperatures and/or lower Substrate Temperatures should not have a significant effect on the gel time or working time of a pre-conditioned epoxy compound.

*Represents mixing time.

**Represents 3 minute mixing and 5 minute induction time, prior to placement into the holding pan

APPLICATION

PRE-APPLICATIONS

All materials are to be conditioned to a minimum of 85°F (29°C) and a maximum of 100°F (38°C) for 24 hours prior to use. When ambient temperature falls below 70°F all materials are to be stored in a warm environment of a minimum of 85° F and removed from this environment just prior to use. Warm materials provide better wetting in (lower viscosity) and faster set time.



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CLEAN-UP

Most tools can be cleaned up with water if the epoxy has not set. Warm water and soap is recommended. Cured material can only be removed mechanically

CAUTION-FOR INDUSTRIAL USE ONLY: FORTEC FIBER MATRIX epoxies contain alkaline amines. Strong sensitizer MAY CAUSE SKIN SENSITIZATION or allergic response ranging from a mild wheezing to a severe asthmatic type attack. Avoid contact with skin or eyes. IN CASE OF CONTACT immediately wash skin with soap and water. Flush eyes with water and obtain medical attention. Wear protective clothing, goggles and barrier cream on all exposed skin. Provide adequate ventilation.

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