

HI MOD FIBER MATRIX #4550 LPL

MOISTURE INSENSITIVE HIGH MODULUS, HIGH STRENGTH, STRUCTURAL EPOXY

FOR INDUSTRIAL USE ONLY

MIXING RATION	2A to 1B	By Volume	
COMPRESSIVE YIELD STRENGTH		ASTM-D-695	
	****40°F(4°C)	****75°F(24°C)	****90°F(32°C)
24 Hours PSI(Mpa)		3200 (22 Mpa)	3600 (25 Mpa)
3 Days PSI (Mpa)	4000 (28 Mpa)	9100 (63 Mpa)	9600 (66 Mpa)
7 Days PSI (Mpa)	7200 (50 Mpa)	10500 (72 Mpa)	9600 (66 Mpa)
TENSILE PROPERTIES		ASTM-D-638	
14 Days Tensile Strength PSI			6000 (41 Mpa)
Elongation at Break			2 - 4 %
FLEXURAL PROPERTIES 14 DAYS		ASTM-D-790	
Flexural Strength PSI			7600 (52 Mpa)
GLASS TRANSITION TEMPERATURE		ASTM-E-1356	
2nd Run			
1st Run			>135°F (57°C)
SHORE D HARDNESS		ASTM-D-2240	84
POTABLE WATER		ANSI/NSF 61-1992	Y/N

****INDICATES TEMPERATURE FOR CURING & TESTING

COLOR	Part A Resin	Straw
	Part B Hardener	Amber
	Ad-Mix	Amber

PACKAGING Available in 3 Gallon Units. Available in larger units on request.

- CAUTION**
- Minimum surface application temperature is 40°F (4°C)
 - Do not seal slabs on grade
 - Material is a vapor barrier after cure
 - Not for sealing cracks under hydrostatic pressure
 - Minimum age of concrete must be 21 - 28 days
 - Test for surface vapor transmission. Moisture passing through the substrate by pressure during the application and curing will cause bond failures
 - Due to many variables in bonding on damp or underwater surfaces, be certain to test application under the same conditions as full-scale work



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TEMPERATURES

Will cure at temperatures as low as 40°F (4°C), providing the temperature will be 40°F and rising during the next 72 hours. Epoxy materials should be stored at least 24 hours prior to use at 80°F (26°C), or higher. Epoxies stored below 60°F (15°C), will cause the epoxy to thicken substantially, making it difficult to properly blend the two materials and obtain a proper mating of resin and hardener. Protect from inclement weather and freezing. If product temperature falls below 50°F (10°C), it is recommended that a product temperature of 80°F (26°C) be obtained prior to using. **Store dry at 40°F (4°C) - 100°F (38°C). Condition to 70°F (26°C) - 85°F (29°C) before using.**

VISCOSITY:	Ad-Mix	ASTM-D-2393	700-900 cps
GEL TIME:	73°F (23°C)		approx. 100 minutes
TACK FREE TIME:		***75°F (24°C)	***90°F (32°C)
		5 hours	4 1/2 hours

***AMBIENT TEMPERATURE

NEAT BINDER

Bond Strength, PSI,	ASTM-C-882	
2 Days (moist cure) Hardened concrete to hardened concrete or steel-	1200 min. (8.2 Mpa)	
Water Absorption 24 Hrs %	ASTM-D-570	.08 % maximum

DESCRIPTION

Fortress 4550 LPL Hi-Modulus Fiber Matrix is a 100% solids, solvent-free, two-component MOISTURE INSENSITIVE EPOXY. Fortress 4550 Fiber Matrix is a low viscosity epoxy for wetting and use with carbon fiber for structural repairs.

ADVANTAGES

- Easy mix ratio: 2 Parts A to 1 Part B by Volume
- Long Pot Life with rapid strength development
- Provides high early strength and excellent adhesion to most structural materials
- Insensitive to moisture before, during and after cure
- Low temperature cures - As low as 40°F (4°C)

PHYSICAL PROPERTIES

- Moisture Insensitive & low temperature cure
- #4550 LPL Fiber Matrix Structural Epoxy

CAUTION-FOR INDUSTRIAL USE ONLY: FORTRESS 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.

