Milliken Infrastructure

FormaShield®

Chemically Resistant Composite Repair System



OIL, GAS + INDUSTRIAL

FormaShield® is a high strength Tri-Directional Fiber Glass solution for on-site repair of corroded piping structures. Provided as a Two Part Epoxy, FormaShield is a great general purpose solution with a high TG.

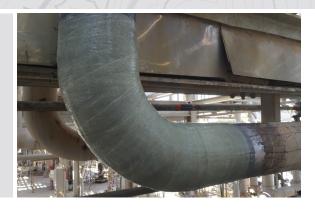
MECHANICAL PROPERTIES	UNITS	ASTM TEST METHOD	FORMASHIELD CR
Tensile Strength	PSI, MPA	D3039-00, A370, E8	74,00 Hoop (510) 17,900 Axial (123)
Tensile Modulus	PSI, MPa	D3039-00	3.1x10 ⁶ (21,500)
Flexural Strength	PSI, MPa	D790-00	84,200 (580)
Flexural Modulus	PSI, MPa	D790-00	3.0x10 ⁶ (20,700)
Shear Modulus	PSI, MPa	D5279-01	1.3x10 ⁶ (9,100)
Interlaminar Shear Strength	PSI, MPa	D3165-07	19,300 (133)
Hardness, Shore D		D-2240	85
Glass Transition		E1356	220°F (104.5°C)
Thermal Expansion		E831-6	8.7x10 ⁻⁶ (in/in/°F)
			15.6(in/in/°C)
Poisson's Ratio		D3039-00	0.37

PHYSICAL PROPERTIES

Stocked Width	4", 6" & 12" (10cm, 15cm, 30.5cm)
Fabric Orientation	Tri-Axial
Nominal Ply Thickness	0.030 Inches (30 mils)(0.76 mm)

GENERAL PROPERTIES

Maximum Operating Temperature	185°F (84.5°C)
Working Time (Dependent on Temperature	40 Minutes @ Ambient
Set Time	1 Hour
Chemical Resistance	Gasoline, Mek, Acetone, Toluene, Ethyl Alcohol and other hydrocarbons
Shelf Life	One year from ship date
Application Conditions	Above 55°F(13°C) up to 120°F (49°C)
Cure Time	24-72 Hours



Typical Uses

The FormaShield® system is generally used on piping systems suffering from corrosion or mechanical damage. The system is suitable to repair the following:

- External corrosion and pitting
- Dents, gouges and scratches
- Welds and other manufacturing flaws

Benefits

- Site impregnated
- Resin Part A and Part B come to the field premeasured
- Structural fabric is impregnated in the field with conventional equipment
- Ideal application temperature up to 185°F (84.5°C)

Complete Kit Includes

- Fiberglass Fabric
- Resin- Parts A & B
- Primer Kit
- Constrictor Wrap
- Mixing Tools, Gloves



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