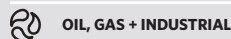


Atlas™

Carbon Fiber Composite Repair System



Atlas™ is a high strength, high stiffness carbon fiber solution for on-site repair of piping structures. Atlas™ is designed for repairs requiring strain reduction due to dynamic loading conditions

MECHANICAL PROPERTIES	UNITS	ASTM TEST METHOD	VALUES
Tensile Strength	PSI, MPa	D3039-00	151,000 (1,041)
Tensile Modulus	PSI, MPa	D3039-00	9.7 x 10 ⁶ , (66,879)
Flexural Strength	PSI, MPa	D790-00	113,000 (779)
Flexural Modulus	PSI, MPa	D790-00	9.1 x 10 ⁶ , (62,742)
Shear Modulus	PSI, MPa	D5279-01	9.64 x 10 ⁵ (6,647)
Interlaminar Shear Strength	PSI, MPa	D3165-07	8,200 (56.5)
Barcol Hardness		D-2583	53
Glass Transition		ISO 11357-2	350°F (177°C)
Thermal Expansion		E831-6	.116 um/m/°F (.208 um/m/°C)
Poisson's Ratio		D3039-00	.150

PHYSICAL PROPERTIES (ACFE)

Stocked Width	12" (30.5 cm)
% Resin content by weight	36 4 3
Fabric Orientation	Bi-Axial 0° and 90°
Cure Ply Thickness	0.019 IN (19 mils) (0.48 mm)

GENERAL PROPERTIES

Maximum Operating Temperature	314°F (157°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 45°F (7°C) up to 120°F (49°C)

Typical Uses

The Atlas™ system is most commonly used for pipelines and piping systems that have suffered from corrosion or third party damages. Possible defects that can be repaired include:

- External corrosion and pitting
- Dents, gouges and scratches
- Welds and other manufacturing flaws
- Wrinkle Bends
- Crack Reinforcement (conditional cases)

Benefits

- Site impregnated
- Resin part A and part B come to the field pre-measured
- Structural fabric is impregnated in the field with conventional equipment
- Restores pipe to original strength
- Ideal application temperature up to 120 °F (49 °C)
- Independently certified to ASME-PCC-2 and ISO 24817 standards

Complete Kit Includes

- Carbon Fabric
- Primer Kit
- Constrictor Wrap



Before using any ClockSpring|NRI product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at www.cs-nri.com or by calling 281-590-8491. ClockSpring|NRI is a licensed trademark of NCF industries, Inc.