Milliken® Infrastructure Solutions

A+ Wrap™

Composite Repair System for Pipelines

OIL, GAS + INDUSTRIAL

The A+ Wrap™ system is an advanced economical composite repair solution for pipes with corrosion defects and third-party damage. Consisting of high-strength proprietary glass fiber reinforcement, this moisture cured polyurethane system offers ideal remediation for pipes of any size or shape.

Following the ASME PCC-2 and ISO 28417 standards, the A+ Wrap system reinforces pipe by containing hoop and axial loads thereby reducing strain in the defect region. The A+ Wrap system requires no special tools for application and sets within an hour after installation. Additionally, it can be used with our patented ILI Detection System.

MECHANICAL PROPERTIES	METHOD	VALUE
Tensile Strength	ASTM D 3039	51,800 psi
Tensile Modulus	ASTM D 3039	3.01 x 10^6 psi
Poisson's Ratio	ASTM D 3039	.077

THERMAL PROPERTIES	METHOD	VALUE
Thermal Expansion	ASTM E 831	10.2 µm/m/˚C Heat
Distortion Temperature	ASTM D 648	205˚C (400˚F) Max
Operating Temperature	ASME PCC-2	185˚C (365˚F) Application
Temperature	—	-50˚F up to 120˚F (49˚C with working temperature up to 365˚F)

SYSTEM PROPERTIES	
Ply Thickness	22 mils (0.022 inches)
Working Time	20 – 30 minutes
Set Time	1 hour
Cure Time	24 hours
Shelf Life	One Year @ 40 - 75˚F
Stocked Sizes	Available in widths from 2 – 12 inches

Typical Uses

The A+ Wrap system is most commonly used for pipelines and piping systems suffering from corrosion or mechanical damage. Repairable defects include:

- External corrosion and pitting
- Dents, gouges and welds
- Manufactured defects

Benefits

- Ready to use
- Water activated pre-impregnated fiber allows for easy installation
- Can be applied on dry or wet surfaces, even underwater
- Can be applied at temperatures up to 120˚F but works up to 365˚F
- Up to 30 minutes working time once pouch is opened
- Sets within an hour and cures fully after 24 hours
- Used frequently as part of a custom designed repair
- Conforms to any shape including elbows, tees, flanges, bends & more

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855-655-6750

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