Milliken Infrastructure

# Vrap

**Water Activated Composite Repair System** 



OIL, GAS + INDUSTRIAL



**The A+ Wrap**<sup>™</sup> **System** is a high-strength, water-activated fiberglass composite pre-impregnated with moisture cured polyurethane resin. It is designed for simplification of installation for restoring the structural strength of degraded pipe with varying geometries. It is also able to be used for pressure containment under certain circumstances.

### **Approved Uses**

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

### Type A Repairs

- Dents
- External Wall Loss
- Internal Wall Loss (limited)
- Gouges (limited)
- Weld Defect
- Manufactured Flaws (limited)

#### Type B Repairs

Overwrap of stop gap (chemical resistance check required)

### **Benefits**

- Ready to use
- Water-activated, pre-impregnated material allows for easy installation
- Can be applied on dry or wet surfaces, even underwater (when used with specialized filler materials and primer)
- Up to 30 minutes working time once pouch is opened
- Sets within an hour and fully cures after 24 hours at 78°F (26°C)
- Used frequently as part of a custom designed repair
- Conforms to any shape including elbows, tees, flanges, reducers & more

Cluster Corrosion Defect



Repaired using A+ Wrap



Application	A+ Wrap	Pre-Cured Wrap	Epoxy Wet Out	Steel Sleeve	Cut-Out
Above Ground	<b>~</b>	~	~	~	~
Buried	<b>~</b>	•	<b>~</b>	~	~
Soil-to-Air	<b>~</b>	limited	<b>~</b>	limited	limited
Underwater	<b>~</b>	×	×	limited	limited
Splash Zone	~	limited	limited	limited	limited





### OIL, GAS + INDUSTRIAL

# Wrap™

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### **Corrosion Repair**

Before



After



### **Dent Repair**





# **Girth Weld and Bend Repair**





# **Corrosion Repair**



