



PROCESS PIPE REPAIR & RENEWAL SYSTEMS

StrongPIPE® V-Wrap™ Composites



STRUCTURAL TECHNOLOGIES provides a robust line of piping repair composite systems which can be used for moisture resistance. Our systems comply with ASME PCC-2 standards and are ICC ESR-3606 certified.

For these specialized applications, we use our products in combination with our certified installation capabilities of our specialty contracting companies to provide a single source approach to increasing the reliability of your process piping systems.

Applications:

- Process piping
- Transmission & distribution piping
- Chemicals, oil, gases, water & steam lines
- Flares & blowdowns
- Girth welds on vessels & pipelines, straights, elbows, tees, reducers



	V-Wrap™ EG50	V-Wrap™ EG50B	V-Wrap™ C200HM	V-Wrap™ C400HM
Description	Field-saturated, uni-directional glass composite system used to repair internal and external corrosion. Low-cost system used for leaking lines and temporary repairs.	Field-saturated, bi-directional glass composite system used to repair internal and external corrosion. Low-cost system used for rapid, temporary repairs.	Field-saturated, uni-directional carbon fiber composite system used to repair internal and external corrosion. Fully structural for long term repairs.	Field-saturated, uni-directional heavy weight carbon fiber composite system used to repair internal and external corrosion. For rapid repairs requiring structural upgrade for long term service.
Typical Applications	<ul style="list-style-type: none"> • Chemical processing lines • Girth welds, straight segments • Low temperature environments 	<ul style="list-style-type: none"> • Chemical processing lines • Girth welds, straights, elbows, tees 	<ul style="list-style-type: none"> • Transmission & distribution pipelines, chemical processing lines • Long term service capability, can be designed as equivalent to replacement • Mechanical dents and defects 	<ul style="list-style-type: none"> • Rapid repair of transmission & distribution pipelines, chemical processing lines • Long term service capability, can be designed as equivalent to replacement • Girth welds, straights, elbows, tees
Application Temperature	50° to 90°F	50° to 90°F	40° to 100°F	40° to 100°F
Operating Temperature	-50° to 140°F	-50° to 140°F	-50° to 150°F	-50° to 150°F



StrongPIPE® V-Wrap™ Chemical Resistance Guide

The below table summarizes the chemical resistance of the StrongPIPE® V-Wrap™ system exposed to a variety of salts, acids, and bases, as well as environmental factors. All results are classified by percentage of weight lost at the end of the exposure time, unless otherwise specified. The StrongPIPE® V-Wrap™ system is shown to be resilient against many strong chemicals up to a minimum of 30 days. For additional chemical testing and prolonged exposure testing, contact STRUCTURAL TECHNOLOGIES.

Chemical Name	Symbol	24 Hours	7 Days	30 Days	E = Excellent (0-5%) G = Good (5-10%) A = Acceptable (10-15%) <i>*Classified by retention of mechanical properties</i>
Aluminum Sulfate (25%)	$Al_2(SO_4)_3$	E	E	E	
Ammonium Bisulfate (25%)	$(NH_4)HSO_4$	E	E	E	
Ferric Chloride (25%)	$FeCl_3$	E	E	E	
Hydrochloric Acid (10%)	HCl	E	E	E	
Hydrochloric Acid (20%)	HCl	E	E	G	
Sodium Bisulfite (10%)	$NaHSO_3$	E	E	E	
Sodium Bisulfite (20%)	$NaHSO_3$	E	E	E	
Sodium Bisulfate (25%)	$NaHSO_4$	E	E	E	
Sodium Bromide (25%)	NaBr	E	E	E	
Sodium Hydrosulfide (15%)	NaSH	E	E	E	
Sodium Hydroxide (10%)	NaOH	E	E	E	
Sodium Hydroxide (50%)	NaOH	E	E	E	
Sodium Hypochlorite (5%)	NaClO	E	E	E	
Sodium Hypochlorite (10%)	NaClO	E	E	E	
Sodium Hypochlorite (15%)	NaClO	E	E	E	
Sodium Hypochlorite (6% @ 110F)	NaClO	E	E	E	
Sulfuric Acid (10%)	H_2SO_4	E	E	G	
Sulfuric Acid (50%)	H_2SO_4	E	E	G	
Salt Water (@73°F)*	-	E	E	E	
Salt Water (@120°F)*	-	E	E	E	
Salt Water (@140°F)*	-	E	E	E	
Freeze/Thaw (20 cycles)*	-	-	-	E	
Water Resistance (@100°F)*	-	E	E	E	
Alkaline*	$Ca(CO_3)$	-	-	G	
Dry Heat (@140°F)*	-	-	-	G	