

Corro-Wrap™ IR



Fiberglass/ Water Activated Urethane Reinforcement System

Prevention and Repair of Corroded and Damaged Piping Systems and Infrastructure

CORRO WRAP™ IR is engineered to provide strength that enables a pipe to be restored to its maximum allowable operating pressure (MAOP) without system shutdown. The system is comprised of water curing urethane resin impregnated in a biaxial fiberglass, thoroughly and independently tested at international laboratory level.

Corro-Wrap™ IR requires an engineering assessment to compile service information such as substrate material, wall loss, operating temperature, pressure ranges and environment exposure.

Corro-Wrap™ IR shall be incorporated with Corroserv™ range of infill and interface agents to suit the specific repair requirements.



INFILL/ INTERFACE

CORRO-FIX 913

- Solvent-free formulation incorporated with Kevlar™ fibres as reinforcement.
- Outstanding mechanical & chemical resistance
- Can be applied over a wide range of substrates above & below water

CORRO-CHEM™ 330 HHA HB

- Designed for applications where resistance to aggressive chemical exposure is of paramount importance.
- High temperature resistance up to 125°C for continuous and 149°C for intermittent exposure.

CORRO-DUR™ 450

- Solvent-free epoxy resin reinforced with metal filler
- Excellent chemical resistance against a wide range of chemicals
- Applicable above or below water

CORRO-DUR™ 2000 UHB

- Outstanding mechanical & chemical resistance
- Applicable on high temperature substrates up to 121°C for continuous and 204°C for intermittent exposure

PRODUCT SPECIFICATIONS

Composite System		Biaxial Fiberglass Impregnated with Water Activated Urethane Resin
Ply Thickness		0.012 inches (0.305 mm)
Working Time		45 minutes @25°C
Full Cure Time		12 – 24 hours*
Shelf Life		1 Year
Available Sizes**	2" x 15'	(5.0 cm x 4.5 m)
	3" x 9'	(7.5 cm x 2.7 m)
	4" x 20'	(10.0 cm x 6.0 m)




*Depending on the substrate and surrounding temperature
**Other sizes available upon request

MECHANICAL PROPERTIES

Tensile Strength (Hoop) (ASTM D3039)	376,000 kPa
Tensile Strength (Axial) (ASTM D3039)	346,000 kPa
Lap Shear Strength (ASTM D3165)	96,500 kPa @60°C
Tg (ASTM D7028)	143°C

APPLICATION STEPS

Corro Wrap™ IR is pre-impregnated fiberglass composite that is activated and cured by either fresh or salt water. Packed in a sealed foil pouch, it is prepared for immediate use and does not need measuring or blending. Corro Wrap™ IR is easily applied in 6 steps:

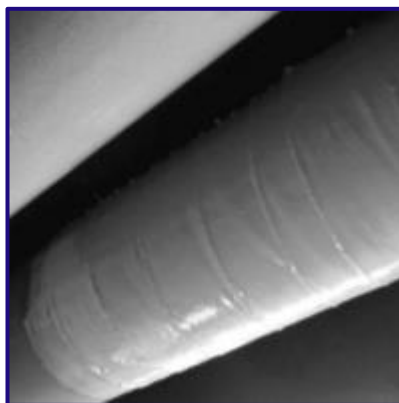
					
1 Measure and mark the recommended repair length	2 Prepare the surface via blasting/ power tooling. Clean the surface using MEK or other solvent	3 Apply the recommended infill agent to seal any leaks and rebuild wall losses to the original level of substrate	4 Apply the recommended interface agent at average thickness of 300 microns	5 Wrap using Corro Wrap™ IR to the required no of layers, keeping tension to the tape at all time	6 Overwrap using stricture banding for compaction, perforate using spike roller to allow release of excess resin

FEATURES & USES

- Rehabilitate and restore original strength to damaged, corroded, and eroded piping system
- Designed as per **ISO 24817** and **ASME PCC-2** guidelines
- Can be installed on straight pipes, tees, elbows, and other fittings
- Zero downtime – can be installed with minimal disruption to the operation of the piping system
- High strength and fast curing
- High temperature resistance
- No VOCs
- Compatible with carbon steel, stainless steel, alloys, PVC, fiberglass and other materials

CHEMICAL RESISTANCE CHART

Chemicals	Test Temperature		2 Months Test Period, ASTM D543
	°C	°F	
Sulphuric Acid, 50%	23	73	No Effect
Hydrochloric Acid, 50%	23	73	No Effect
Sodium Hydroxide Solution, 20%	23	73	No Effect
Gasoline	23	73	No Effect
Toluene	23	73	No Effect
Xylene	23	73	No Effect
Mineral Spirits	23	73	No Effect
Distilled Water	23	73	No Effect



For more information, please contact our representative:

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We are specialized in online repair services/maintenance as we can offer comprehensive engineering services for the offshore, marine, petrochemical, power generation, food processing, palm oil processing and other industries throughout the region.