

Stop It® CR-U

by InduMar Systems, LP

STOP IT® CR-U is a low cost composite system for use in repair and reinforcement of existing mechanical systems, structures and piping.

Furnished factory-impregnated with our proprietary urethane resin systems, it is odorless and non-flammable. STOP IT® CR-U is ready to apply, right out of the bag and cures by way of a chemical reaction with field-applied water. When cured, it is a very durable, high strength material that is impervious to fuels, most chemicals and solvents. It permanently bonds to a wide variety of surfaces such as metals, composites, concrete, plastics, and wood.

STOP IT® CR-U is available in a several E-glass and Carbon fabrics to satisfy a wide variety of application situations. The unique urethane resin system has excellent long term strength characteristics and toughness. It has been tested to and meets the requirements of the ASME PCC-2 composite piping reinforcement standard.

Furnished resin-wetted and uncured, in rolls, STOP IT® CR-U ships to the field inside hermetically sealed metallized pouches. To use the product, you just tear open the pouch and start wrapping or laying up onto the surface to be repaired or encapsulated. Initial hardening happens in about an hour, with substantial strength increasing over the next few hours.



General Characteristics

Glass Transition Temperature (T_g): 288°F.

Working Time: 60 minute package open time, depending on ambient humidity

Cure Time: 30 minutes nominal, after water application

Chemical Resistance: Resistant to acetone, mek, toluene, gasoline, ethyl alcohol and many others Adhesion – 1,000PSI (lap shear) to abraded carbon steel, using PA1 Primer/Adhesive

Heat Distortion Temperature: >325°F.

Features

- High Strength Low Cost
- Uses a Water-activated Polyurethane Resin
- Cures in Wet Conditions and Underwater
- Excellent Toughness – Resists Cracking
- Heat Resistant to 250°F.
- Non-Hazardous
- 30-Minute Working Time, Perfect for Long Installations
- Can be applied over a wide temperature range

Industries Served

- Power Generation
- Petrochemical Plants
- Mining
- Industrial
- Pulp and Paper
- Liquid and Gas Transportation
- Production Facilities
- Water and Wastewater Treatment

Fabric Summary

CR-U₃: Light weight custom woven glass fabric for general purpose use.

CR-U₅: Heavy weight custom woven glass fabric for larger diameter piping and structures.

CR-U₂₂: This highly conformable knitted glass fabric is for use on tee's, couplings, and valves.

CR-Uc₂: A custom sewn bi-axial Carbon fabric for use when high strength and/or modulus are required.

Product Reinforcement	CR-U ₃ Woven Bi-Axial glass	CR-U ₅ Woven Bi-Axial glass	CR-U ₂₂ Knitted Glass	CR-Uc ₂ Bi-Axial Carbon
Cured wrap thickness mils.	16	28.5	38	30
Tensile strength warp direction ksi.	60900	45500	31555	76189
Tensile strength fill direction psi.	32429	45500	31555	61663
Tensile modulus warp direction msi.	3.01	2.28	1.98	4.56
Tensile modulus fill direction msi.	2.16	2.28	1.98	4,50
Long term tensile load per ply lbs/in	465	600	623	1665

Design Calculations and Installation Assistance

Design recommendations and calculations pursuant to ASME PCC-2 standards are available.

Assistance in the planning of installations in order to achieve the best installation at minimum labor cost is also available. For field assistance InduMar Products may provide services, which are confined to, on-site supervision, training, certification, project management, or technical support. For further assistance regarding an application, installation, or product capabilities, please contact InduMar Products at www.InduMar.com or 713.977.4100/800.523.7867

Data and parameters listed in our data sheets have been obtained using materials under carefully controlled conditions. Data of this type should not be used by engineers as design specifications, but rather as indicative of ultimate properties obtainable. Before using, user should determine the suitability of the product for its intended use. In determining whether the material is suited for a particular use, such factors as overall application configuration and design, field conditions and environmental criteria to which it will be subjected should be considered by user.