



DIAMONDWRAP

DiamondWrap is an engineered composite repair system made of proprietary carbon fiber cloth applied with a two-part epoxy and a high-modulus filler material. It functions as a pressure-containing repair to seal leaks and as a reinforcing repair to restore original pipe strength in both the hoop and axial directions.

DiamondWrap is used regularly in plants, refineries, tank farms, terminals, and offshore locations around the globe and is ideal for complicated geometry, such as tees, flanges, and varying diameter pipe. It is available in multiple kit sizes for any temperature and diameter pipe and can be installed with minimal disruption to operations.

APPLICATIONS

- › Cooling water lines
- › Flare lines
- › Blow down lines
- › Chemical processing lines
- › Oil and gas risers
- › Steel pipe
- › Stack towers
- › Steam piping
- › Underwater pipeline
- › Storage tanks and vessels

COMPLIANT WITH: (standards/regulations)

- › AB-539
- › ASME PCC-2
- › ISO 24817
- › ASME B31
- › US DOT
- › API
- › CSA Z662



BENEFITS:

- › Eliminates unplanned down time for high-consequence piping
- › Extends the life of aging and corroding assets
- › No pipe cutting or welding
- › Minimal creep ensures a long service life
- › No VOCs
- › Prevents future external corrosion

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TECHNICAL DATA

	DIAMONDWRAP (Field-saturated)		DIAMONDWRAP MT (Field-saturated)		DIAMONDWRAP HT (Field-saturated)		DIAMONDWRAP UHT (Pre-saturated)	
Fabric	FCB-033	FCB-123	FCB-033	FCB-123	FCB-033	FCB-123	FCB-033	FCB-123
Ply Thickness	0.0105"	0.0175"	0.0105"	0.0175"	0.0105"	0.0175"	0.0105"	0.0175"
Shore D Hardness	85		85		84		80	
Max Installation Temp	120°F (50°C)		180°F (80°C)		250°F (121°C)		250°F (121°C)	
Max Operating Temp	200°F (93°C)		313°F (156°C)		430°F (221°C)		597°F (314°C)	
Min Operating Temp (after full cure)	-58°F (-50°C)		-58°F (-50°C)		-58°F (-50°C)		-58°F (-50°C)	
Shelf Life	12 months		12 months		12 months		6 months	
Chemical Resistance	Wide range (see Chemical Compatibility Chart for details)							

CURE SCHEDULE^{1,2} (HOURS)

TEMP		DIAMONDWRAP		DIAMONDWRAP MT		DIAMONDWRAP HT		DIAMONDWRAP UHT
(°C)	(°F)	Option 1 Recommended	Option 2	Option 1 Recommended	Option 2	Option 1 Recommended	Option 2	Option 1 Recommended
25	77	24	-	3	3	-	-	-
60	140	-	18	2	2	5	5	-
90	195	-	-	1	-	1	1	-
120	250	-	-	1	-	-	-	1
150	300	-	-	1	10	-	1	-
175	350	-	-	3	-	1	-	1
205	400	-	-	-	-	-	3	1
232	450	-	-	-	-	2	-	6
280	536	-	-	-	-	-	-	1
320	608	-	-	-	-	-	-	1

(1) For exact post-curing schedule please refer to the technical binder. The listed cure schedule should be followed from the lowest temperature to the highest with the hold times listed in hours completed prior to ramping up to the next temperature.

(2) The cure schedule of the chosen column must be fully completed to reach the recommended cure and achieve 90% of the Target Shore D hardness.

WARRANTY CSNRI routinely implements product improvements. Please contact your local distributor or office for the most current product specifications. CSNRI warrants the quality of this product when used according to directions.

PS_1025

ISO 9001 Certified

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