

## HydraTech HydraWrap<sup>®</sup> E System Fiberglass Composite Repair System

Issue 3.28.23

The HydraWrap system is a performance driven product that provides a chemical and corrosion resistant structural repair. The HydraWrap system is backed by our engineering staff that services each application with assessment and technical support. It offers a low cost, long term solution to the most challenging demands of the industry.

### PRODUCT DESCRIPTION

- ≠ HydraWrap E is a Fiberglass Repair System repair system engineered to restore or enhance the structural integrity of pipe and infrastructure.
- ≠ HydraWrap E is a uniquely designed high performance system that consists of a 100% solids high build epoxy Primer, a 100% solids epoxy Wet-Out resin, and fiberglass fabric.
- ≠ The Primer provides excellent adhesion to a variety of substrates while allowing a sag free application at high film builds.
- ≠ The Wet-Out resin is designed to thoroughly wet out the fiber forming a composite matrix with a very high tensile and flexural properties.

#### Advantages

- ≠ Rapid development of physical properties with ambient cure. No post cure required.
- ≠ Chemical and Corrosion Resistant Structural Repair
- ≠ High Tensile / Flexural Modulus and Strength
- ≠ 100% Solvent-Free, Zero V.O.C.
- ≠ Low temperature cure down to 40°F (4°C)
- ≠ Installed by fully trained application specialists
- ≠ Full contract support services available

### PHYSICAL PROPERTIES

|                               | <u>Primer</u>  | <u>Wet-Out</u> |
|-------------------------------|--|----------------|
| Color                         | Steel Blue   | Clear          |
| Working Life – 68°F (20°C)    | 15 minutes   | 15 minutes     |
| Dry Times – 68°F (20°C)       | 4 Hours  | 4 Hours        |
| % Vol Solids (ASTM 2369)      | 100  | 100            |
| Shore D Hardness (ASTM D2240) | 80   | 85             |
| Mix Ratio                     | Pre-measured 1:1   |                |
| Flash Point                   | > 200°F (93°C)   |                |
| Storage                       | Store in original sealed containers, between 50-77°F (10-25°C) |                |

### PERFORMANCE DATA

#### CHEMICAL RESISTANCE ASTM D543 (30 day immersion)

|                              |           |
|------------------------------|-----------|
| Water                        | No effect |
| Sodium Hydroxide 5%          | No effect |
| Ammonium Hydroxide 5%        | No effect |
| Sodium Hypochlorite (bleach) | No effect |
| Ferric Chloride 1%           | No effect |
| Sulfuric Acid 20%            | No effect |
| Nitric Acid 1%               | No effect |
| Detergent Solution           | No effect |
| Gasoline                     | No effect |
| Toluene                      | No effect |

#### ADHESION ASTM D4541 (psi)

|                     |                  |
|---------------------|------------------|
| Cold Rolled Steel   | >2,000           |
| Hot Rolled Steel    | >2,000           |
| Cast Iron           | >2,000           |
| 304 Stainless Steel | >2,000           |
| 316 Stainless Steel | >2,000           |
| Concrete            | Concrete Failure |

(Testing reflects results after 24 hour cure)

#### Maximum Operating Temperature = 200°F

For details regarding the testing associated with the provided data refer to the HydraWrap Testing and Design Sheet.



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### APPLICATION RECOMMENDATIONS

|                           |                             |
|---------------------------|-----------------------------|
| Minimum Application Temp  | 40°F (4.4°C)                |
| Maximum Relative Humidity | 85%                         |
| Substrate Temperature     | 5°F (3°C) above dew point   |
| Thinning                  | Do not thin                 |
| Cleaning Fluid            | Universal Equipment Cleaner |

To aid application at low temperatures, both components should be warmed to 60-68°F (15.5-20°C) prior to mixing.

### SUBSTRATE PREPARATION

Substrate preparation dictates the adhesion performance of any coatings system. A properly prepped surface will ensure maximum life and performance of the system.

|                  |            |   |             |
|------------------|------------|---|-------------|
| <b>Concrete:</b> | NACE No.6* | / | SSPC-SP 13* |
| <b>Steel:</b>    | NACE No.2* | / | SSPC-SP 10* |
|                  | NACE No.3  | / | SSPC-SP 6   |
|                  | NACE No.5  | / | SSPC-SP 12  |

\*indicates recommended method

### NOTE

The HydraTech HydraWrap E System is not intended for applications with exposure to strong acids, organic acids, strong solvents (MEK, Acetone, Alcohol) or high temperatures (>200°F). To be applied by certified personnel only. See MSDS for safety information.

### INSTALLATION PROCEDURE

- ≠ Prep substrate according to NACE / SSPC spec.
- ≠ Measure fabric around pipe to ensure proper length.
- ≠ Mechanically mix together both primer components until uniform.
- ≠ Apply primer to prepared substrate via brush or spreader.
- ≠ Mix both Wet-Out components for two minutes.
- ≠ Apply Wet-Out to fabric via spreader or impregnator ensuring complete wet out of fabric.
- ≠ Apply saturated fabric to wet primer ensuring a consistent, smooth wrap free of voids.
- ≠ Allow system to completely cure.
- ≠ If exposed to sunlight, top coat the wrap with a light stable top coat.

For details regarding application refer to the HydraWrap Installation Procedure

### COVERAGE

|                | UNIT SIZE | COVERAGE         |
|----------------|-----------|------------------|
| <b>PRIMER</b>  | Pt        | 4.5 sqft         |
|                | Qt        | 9 sqft           |
|                | Hg        | 23.5 sqft        |
| <b>WET-OUT</b> | Pt        | 4 sqft of fabric |
|                | Qt        | 8 sqft of fabric |

Primer coverage based on 32mil film build.  
Wet-Out coverage based on 99.36gg/sqft of 300C fabric.

### ORDER INFORMATION

Part No. for standard kits consist of: **System Code – Pipe Size – Pipe Style**

ex. **SH-12-W** (Standard HydraWrap for 12" Weld Repair)

| SYSTEM CODE                 | PIPE SIZE                                |  | PIPE STYLE           |
|-----------------------------|--|--|----------------------|
| <b>SH</b> = Standard        | <b>2</b> = will wrap up to one 2" pipe   | <b>14</b> = will wrap up to one 14" pipe | <b>W</b> = Weld      |
| <b>A</b> = Acid             | <b>4</b> = will wrap up to one 4" pipe   | <b>16</b> = will wrap up to one 16" pipe | <b>E</b> = Elbow     |
| <b>M</b> = Mid-Temperature  | <b>6</b> = will wrap up to one 6" pipe   | <b>20</b> = will wrap up to one 20" pipe | <b>T</b> = Tee       |
| <b>H</b> = High Temperature | <b>10</b> = will wrap up to one 10" pipe | <b>22</b> = will wrap up to one 22" pipe | <b>SS</b> = Spiral   |
| <b>SS</b> = SubSea          | <b>12</b> = will wrap up to one 12" pipe | <b>24</b> = will wrap up to one 24" pipe | <b>U</b> = Universal |

\*\*\* **NOTE:** Custom kits are available to accommodate nearly any installation. \*\*\*

Add an **M** for the Marine Kit Option. Marine Kits includes tools for mixing and applying the HydraWrap System. ex. SH-12-W-M