**DESCRIPTION:**
V-Wrap 778 is a 100% solids, vinyl ester based resin used for NSM rods, FRP plates or FRP anchors. It can also be used for elevated temperature applications for which typical epoxy adhesives cannot be used.

V-Wrap 778 is an environmentally friendly product with no Volatile Organic Compounds (VOC) and no Hazardous Air Pollutants (HAP), Solvents free and minimum odor. The resin is perfect for healthcare, hospitals, schools, industrial and highly populated areas as well as food and drug industries.

**APPLICATION INFORMATION:**

**MIX RATIO:**
1 Unit Part A to 2 Units Part B (or fractions thereof).

**APPROXIMATE POT LIFE:**
40 min at 77°F (25°C)

**SURFACE PREPARATION:**
V-Wrap 778 should be applied to prepared substrates that are primed with V-Wrap 700 HTg adhesive resin, moisture free, and are free of dust, oils, other surface contaminants, or bond inhibiting materials.

**APPLICATION EQUIPMENT:**
For NSM applications, fill each groove half way with V-Wrap 778 resin using manual or pneumatic caulk gun or by pouring directly into the groove. Install bar then fill the groove.

**MIXING:**
Mix entire unit for best results. Part A must be mechanically premixed separately for 2 minutes. After premixing, blend Part A and Part B with a mechanical mixer for 2 minutes until a homogeneous mixture is achieved. After mixing Parts A and B, untreated fumed silica (or equal) may be added in order to modify the consistency of the material for placement. The maximum ratio of fumed silica to V-Wrap 778 is 1:1 by volume.

**APPLICATION:**
Apply V-Wrap 778 resin directly to the prepared primed substrate for surface embedded bars (NSM application), fill surface grooves using caulk gun or by pouring directly into the groove.

**COVERAGE RATE:**
Coverage rate depends on the application:
- NSM reinforcement: 20 LFT/gal.
- 4" CFRP Plate: 100 LFT/gal.

**LIMITATIONS:**
Only apply V-Wrap 778 when the ambient temperature is between 40°F and 100°F (4°C and 38°C).

**CLEAN UP:**
Use methyl ethyl ketone or acetone. Observe fire and health precautions when using solvents.

**PHYSICAL PROPERTIES:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength (ASTM D638)</td>
<td>9,000 psi (62 MPa)</td>
</tr>
<tr>
<td>Tensile Modulus (ASTM D638)</td>
<td>500,000 psi (3,450 MPa)</td>
</tr>
<tr>
<td>Flexural Strength (ASTM D790)</td>
<td>16,000 psi (110 MPa)</td>
</tr>
<tr>
<td>Flexural Modulus (ASTM D790)</td>
<td>450,000 psi (3,100 MPa)</td>
</tr>
<tr>
<td>Elongation at Break (ASTM D638)</td>
<td>2.0%</td>
</tr>
<tr>
<td>Compressive Strength (ASTM D695)</td>
<td>19,000 psi (131 MPa)</td>
</tr>
<tr>
<td>Compressive Modulus (ASTM D695)</td>
<td>500,000 psi (3,450 MPa)</td>
</tr>
<tr>
<td>Elongation at Failure (ASTM D638)</td>
<td>7%</td>
</tr>
<tr>
<td>Tg (ASTM D4065)</td>
<td>180°F (82°C)</td>
</tr>
</tbody>
</table>

**Density:**
- Mixed Product: 10.2 lbs/gal (1.23 kg/L)
- Part A: 10.25 lbs/gal (1.23 kg/L)
- Part B: 8 lbs/gal (0.95 kg/L)

**VOC Content:**
- 0% VOC

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**Physical Properties:**

V-Wrap™ 778 Adhesive Resin
**V-Wrap™ 778**

**Adhesive Resin**

**OBSERVE WORKING TIME LIMITATIONS:**
Mix no more material than can be applied within the work time period. Available work time, temperature and complexity of the application area will determine how much material should be catalyzed at one time. Keep material cool and shaded from direct sunlight in warm weather. During hot weather, work time can be extended by keeping material cool before and after mixing or by immersing pot in ice water.

**HANDLING PROPERTIES:**
Mixed Viscosity: at 77°F (25°C) 14,000 cps

<table>
<thead>
<tr>
<th>Color</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>Gray</td>
</tr>
<tr>
<td>Part B</td>
<td>Clear</td>
</tr>
<tr>
<td>Mixed</td>
<td>Gray</td>
</tr>
</tbody>
</table>

**SHELF LIFE:**
Stored at 70°F (21°C): 12 months (Part A and B)

**PACKAGING:**

<table>
<thead>
<tr>
<th>Volume</th>
<th>Weight</th>
<th>Packaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>2 gal.</td>
<td>10.25 lbs/gal</td>
</tr>
<tr>
<td>Part B</td>
<td>6 fl. oz.</td>
<td>8 lbs/gal</td>
</tr>
</tbody>
</table>

**STORAGE:**
Store in a cool, dry area (40°F to 90°F [4°C to 32°C]) away from direct sunlight, flame, or other hazards.

**SAFETY:**
WARNING: Vapor may be harmful. Contains vinyl ester resins and curing agent. May cause skin sensitivity or other allergic responses. Keep away from heat, sparks or open flame. In enclosed areas or where ventilation is poor use an approved air mask and utilize adequate safety precautions to prevent fire or explosion. In case of skin contact, wash with soap and water. For eyes, flush immediately (seconds count) with water for 15 minutes and CALL A PHYSICIAN. If swallowed, CALL A PHYSICIAN IMMEDIATELY.

**HANDLING:**
Use of approved personal protection equipment should be worn at all times. Particle mask is recommended for possible airborne particles. Gloves are recommended when handling fabrics and resins to avoid skin irritation. Safety glasses are recommended to prevent eye irritation. Wear chemical resistant clothing/gloves/ goggles. Ventilate area. In absence of adequate ventilation, use properly fitted NIOSH respirator. Product Material Safety Data Sheets (MSDS) are available and should be consulted and on hand whenever handling these products.

These products are for professional and industrial use only and are only installed by trained and qualified applicators. Trained applicators must follow installation instructions.

**MAINTENANCE:**
Periodically inspect the applied material and repair localized areas as needed.

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STRUCTURAL TECHNOLOGIES, LLC warrants its products to be free from manufacturing defects and to meet STRUCTURAL TECHNOLOGIES’ current published properties when applied in accordance with STRUCTURAL TECHNOLOGIES’ directions and tested in accordance with ASTM and STRUCTURAL TECHNOLOGIES Standards. User determines suitability of product for use and assumes all risks. Buyer’s sole remedy shall be limited to the purchase price or replacement of product and excludes labor or the cost of labor. Any claim for breach of this warranty must be brought within one year of the date of purchase.

No other warranties expressed or implied including any warranty of merchantability or fitness for a particular purpose shall apply. STRUCTURAL TECHNOLOGIES shall not be liable for any consequential or special damages of any kind, resulting from any claim or breach of warranty, breach of contract, negligence or any legal theory. STRUCTURAL TECHNOLOGIES assumes no liability for use of this product in a manner to infringe on another’s patent.