

V-Wrap 778 HTg - Adhesive Resin

PHYSICAL PROPERTIES:

| | |
|--|---------------------------|
| Glass Transition Temperature (ASTM 3418): | 520°F (288°C) |
| VOC Content: | Less than 1% per volume |
| Density: | 10.25 lbs/gal (1.23 kg/L) |
| Tensile Strength (ASTM D638): | 4,500 psi (31 MPa) |
| Tensile Modulus (ASTM D638): | 450,000 psi (3,100 MPa) |
| Elongation at Break (ASTM D638): | 1.0% |
| Flexural Strength (ASTM D790): | 10,000 psi (69 MPa) |
| Flexural Modulus (ASTM D790): | 420,000 psi (2,900 MPa) |
| Elongation at Break (ASTM D638): | 2.5% |
| Compressive Strength (ASTM D695): | 14,000 psi (96 MPa) |
| Compressive Modulus (ASTM D695): | 450,000 psi (3,100 MPa) |
| Elongation at Failure (ASTM D638): | 7% |

DESCRIPTION:

V-Wrap 778 HTg is a 100% solids, high viscosity, non-sag paste that is used to bond near-surface mounted (NSM) composite rods and Hardwire reinforcement. The resulting V-Wrap reinforcing systems can provide additional strength to concrete, masonry, and wood structural elements. V-Wrap 778 HTg can be also used to fill imperfections, voids, bug holes, form lines, etc. on prepared and primed concrete surfaces.

V-Wrap 778 HTg is a high temperature resistant, high glass transition temperature (T_g) resin that can be used with V-Wrap Fire Protection System to achieve up to 4 hours fire rating. It can also be used for elevated temperature applications for which typical solvent-based resins can not be used. Glass transition temperature of the V-Wrap 778 HTg exceeds 520°F, making it an ideal candidate wherever high temperature performance is a necessity.

V-Wrap 778 HTg is an environmentally friendly resin that emits less than 1% VOC and no HAP, solvents free, and minimum odor. The resin is perfect for healthcare facilities, hospitals, schools, industrial and highly populated areas as well as food and drug industries.

V-Wrap 778 HTg can be UV-cured for faster installation and to reduce interruptions to facilities operations.

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 HTg Adhesive Resin should be applied to prepared substrates that are primed with V-Wrap 779 HTg Primer, moisture free, and are free of dust, oils, other surface contaminants, or bond inhibiting materials.

Application Equipment:

A 3/8" (medium) nap roller is recommended for Hardwire® applications. When used as a paste filler, the V-Wrap 778 HTg may be applied with a steel trowel to fill bug holes, voids, and form lines. For NSM applications, fill each groove half way with V-Wrap 778 HTg resin using manual or pneumatic caulk gun or by pouring directly into 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, a cabosil untreated fume silica (or equal) may be added in order to modify the consistency of the material for placement. The maximum ratio of cabosil to V-Wrap 778 HTg is 1:1 by volume.

Application:

Option 1 — For Hardwire® applications, apply one coat of the V-Wrap 778 HTg directly to the prepared primed substrate, install Hardwire® reinforcement then apply a second coat of V-Wrap 778 HTg to Hardwire once it has been installed onto the substrate. Application shall be done such that the Hardwire® reinforcement is completely encapsulated by the adhesive resin to form a steel reinforced polymer (SRP) laminate.

Option 2 — When used as a filler, apply V-Wrap 778 HTg resin directly to the prepared primed substrate with a steel trowel to fill voids, bug holes and form lines.



V-Wrap 778 HTg - Adhesive Resin

Coverage Rate:

Coverage rate depends on the application:

| | |
|------------------------|-----------------------------|
| NSM reinforcement | 20 LFT/gal. |
| Hardwire reinforcement | 20-25 ft ² /gal. |

Limitations:

Only apply V-Wrap 778 HTg Adhesive Resin when the ambient temperature is between 40° and 100°F (4° and 38°C).

Clean Up:

Use methyl ethyl ketone or acetone. Observe fire and health precautions when using solvents.

Observe Working Time Limitations:

Catalyze 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

Color:

| | |
|--------|-------|
| Part A | Gray |
| Part B | Clear |
| Mixed | Gray |

Shelf Life:

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

Packaging:

| | Volume | Weight | Packaging |
|--------|-----------|----------|----------------------|
| Part A | 2 gal. | 20.5 lbs | 3 gal. pail |
| Part B | 6 fl. oz. | 6 oz. | two 3 fl. oz. bottle |

STORAGE:

Store in a cool, dry area (40° to 90°F (4° 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. Consult a V-Wrap representative for additional information.

VStructural LLC. warrants its products to be free from manufacturing defects and to meet VSL's current published properties when applied in accordance with VSL directions and tested in accordance with ASTM and VSL 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. VStructural LLC. 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. VStructural LLC. assumes no liability for use of this product in a manner to infringe on another's patent.