



Physical Properties⁽¹⁾:

Tensile Strength (ASTM D638):	8,800psi (60.7 MPa)
Tensile Modulus (ASTM D638):	400,000 psi (2,760 MPa)
Elongation at Break (ASTM D638):	4.4%
Flexural Strength (ASTM D790):	16,000 psi (110.3 MPa)
Flexural Modulus (ASTM D790):	420,000 psi (2,896 MPa)
Compressive Strength (ASTM D695):	12,200 psi (84.1 MPa)
Compressive Modulus (ASTM D695):	440,000 psi (3,304 MPa)
Tg (ASTM E1640):	187°F (86°C)
Density:	
Mixed Product	9.17 lbs/gal (1.11 kg/L)
Part A	9.7 lbs/gal (1.16 kg/L)
Part B	7.9 lbs/gal (0.95 kg/L)
VOC Content (ASTM D2369):	0% VOC

(1) Curing schedule: 72 hours post cure at 140°F (60°C)

DESCRIPTION:

V-Wrap 770 is a two-part, 100% solids, epoxy for high strength composite bonding applications. V-Wrap 770 matrix material is combined with V-Wrap carbon and glass fabrics to provide a wet-layup composite for strengthening of structural members. It is formulated to provide high elongation to optimize properties of the V-Wrap composite systems. It provides a long working time for application, with no offensive odor. V-Wrap 770 may be thickened with fumed silica to produce a tack coat/putty or a finishing coat, depending upon the project requirements.

V-Wrap 770 is an environmentally friendly product with no Volatile Organic Compounds (VOC) or solvents.

PRODUCT USES:

V-Wrap 770 is a multi use epoxy that performs as a primer, tack coat/putty, and saturating resin for the V-Wrap carbon and glass fiber systems. For detailed uses see installation guides for V-Wrap strengthening systems. Fumed silica may be added to thicken the resin. The maximum ratio by volume is 1.5 of fumed silica to 1 part of resin.

ADVANTAGES:

- ICC-ES ESR-3606 listed product
- NSF/ANSI Standard 61 listed product for drinking water systems
- 100% solvent free
- Good high / low temperature properties
- High elongation

APPROXIMATE POT LIFE:

3 to 6 hours at 68°F (20°C)

APPLICATION INFORMATION

SURFACE PREPARATION:

V-Wrap 770 should be applied to substrates that are free of protrusions, dust, oils, and other surface contaminants or bond inhibiting materials. Substrates should be dry and exhibit an open pore structure.

APPLICATION:

Apply primer to repair surfaces with a medium nap roller or non-shedding brush. Ensure full saturation of fabric sheets is achieved before installation. Heavier fabrics typically require mechanical saturation. Apply thickened V-Wrap epoxy using trowels.

BASIC APPLICATION EQUIPMENT:

Application processes for V-Wrap 770 will require mixing drill, mixing paddle, 1/4" nap rollers, steel rollers, paint brushes, trowels and saturator.

MIXING:

Combine the contents of V-Wrap 770-A pail and V-Wrap 770-B pail together making sure to scrape all material from the sides of the pail and mix for 3 minutes using a mixer at a speed of 400-600 RPM until uniformly blended. Transfer the mixed epoxy into the other pail and mix for an additional 2 minutes. Mix ratio: by volume 10 - A to 4.1 - B; by weight 100 - A to 33 - B.

COVERAGE RATES:

AS A PRIMER:

Concrete:	225 ft ² /gal (5.5 m ² /L)
Masonry: (Concrete)	125 ft ² /gal (3.0 m ² /L)
Masonry: (Clay)	200 ft ² /gal (4.9 m ² /L)

AS PUTTY/TACK COAT:

Filler: 60 ft²/gal (1.5 m²/L)
(Depending on surface roughness)



AS SATURANT:

V-Wrap C100 / C100H	80 ft²/gal (1.9 m²/L)
V-Wrap C200H / C200HM	60 ft²/gal (1.5 m²/L)
V-Wrap C400H / C400HM	40 ft²/gal (1 m²/L)
V-Wrap EG50 / EG50B	60 ft²/gal (1.5 m²/L)

Coverage rates may vary based on installation procedure and fabric type. Contact STRUCTURAL TECHNOLOGIES for coverage rates.

LIMITATIONS:

Only apply V-Wrap 770 when the ambient temperature is between 40°F and 100°F (4°C to 38°C). Topcoat selection should be based upon requirements for protection from environmental exposures, aesthetics, and fire protection/burn characteristics.

CLEAN UP:

Use methyl ethyl ketone or acetone. Observe fire and health precautions when using solvents. Dispose of in accordance with local regulations.

OBSERVE WORKING TIME LIMITATIONS:

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

HANDLING PROPERTIES:

Color:	
Mixed	Clear
Part A	Clear
Part B	Clear

SHELF LIFE:

Stored at 70°F (21°C): 24 months (Parts A and B)

PACKAGING:

	Volume	Weight	Package
Part A	2.8 gal	27.7 lbs	5 gal pail
Part B	1.15 gal	9.1 lbs	5 gal pail

STORAGE:

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

SAFETY:

WARNING: Vapor may be harmful. Contains epoxy adhesive 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:

Approved personal protection equipment should be worn at all times. Particles mask is recommended when handling 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 Safety Data Sheets (SDS) are available and should be consulted and on hand whenever handling these products.

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

MAINTENANCE:

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

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.

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