

Physical Properties⁽¹⁾:

Tensile Strength (ASTM D638):	6,500 psi (45 MPa)
Tensile Modulus (ASTM D638):	300,000 psi (2,068 MPa)
Elongation at Break (ASTM D638):	5.5%
Compressive Strength (ASTM D695):	10,300 psi (71 MPa)
Compressive Modulus (ASTM D695):	290,000 psi (2,000 MPa)
Tg⁽²⁾ (ASTM D4065):	170°F (76.7°C)
Hardness (Shore D):	77
VOC Content: (ASTM D-2369):	0% VOC

1. Neat resin properties measured at 7 days ambient cure unless noted otherwise
2. Post cure for 72 hours @ 140°F (60°C)

DESCRIPTION:

V-Wrap 700S is a two-part, 100% solids, low viscosity epoxy for high strength composite bonding applications. V-Wrap 700S matrix material is a saturating resin that is used with V-Wrap carbon and glass fabrics to produce 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 good working time for application, with no offensive odor. V-Wrap 700S can be used as a primer. It can also be mixed with fumed silica to produce an epoxy putty or a high strength durable finish coat.

V-Wrap 700S is an environmentally friendly product with no Volatile Organic Compounds (VOC) or solvents.

PRODUCT USES:

V-Wrap 700S is a multi use epoxy, it performs as a primer, putty filler, and saturant 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 for putty applications. The maximum ratio by volume is 1.5 of fumed silica to 1 part of resin.

ADVANTAGES:

- ICC-ES ESR-3606 listed product
- Excellent durability
- 0% VOC
- 100% solvent free
- Good high / low temperature properties
- High elongation

APPLICATION INFORMATION

SURFACE PREPARATION:

V-Wrap 700S should be applied to substrates that are free of protrusions, dry, exhibit an open pore structure and are free of dust, oils or other surface contaminants or bond inhibiting materials.

BASIC APPLICATION EQUIPMENT:

Application processes for V-Wrap 700S will require mixing drill, mixing paddle, 1/4" nap rollers, steel rollers, paint brushes, trowels and saturator.

MIXING:

Mix ratio: Premix Part A for 2 minutes. Add the full contents of Part B pail to the full contents of Part A pail, or use equal fractions of each pail. Blend Part A and Part B with a mechanical mixer for 3 minutes until uniformly blended.

MIX RATIO:

- 100 Part A to 44 Part B (by weight)
- 100 Part A to 50 Part B (by volume)

APPROXIMATE POT LIFE:

- 100 minutes at 50°F (10°C)
- 45 minutes at 77°F (25°C)

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 A PUTTY/TACK COAT:

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

AS SATURANT:

V-Wrap C100	80 ft ² /gal (1.9 m ² /L)
V-Wrap C200	60 ft ² /gal (1.5 m ² /L)
V-Wrap C200H	60 ft ² /gal (1.5 m ² /L)
V-Wrap C400H	40 ft ² /gal (1 m ² /L)
V-Wrap EG-50	60 ft ² /gal (1.5 m ² /L)

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

LIMITATIONS:

Only apply V-Wrap 700S 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 work time period. 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:	
Part A	Green
Part B	Amber
Mixed	Green

SHELF LIFE:

24 months in original, unopened container.

PACKAGING:

Available in 1, 5 and 55 gallon units.

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 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 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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