

Milliken Infrastructure

# RenewWrap™ ESR Saturant

## 2-Part Epoxy Impregnation Resin



BRIDGES + ROADWAYS



BUILDINGS + PARKING FACILITIES



OIL, GAS + INDUSTRIAL



**RenewWrap™ ESR Saturant** is a two-component, 100% solids high strength, high modulus, moisture insensitive epoxy resin for impregnating RenewWrap ESR reinforcing fabrics. RenewWrap™ ESR Saturant is supplied in two parts. Each part is ordered separately according to the 2:1 mix ratio to determine the desired quantity of mixed resin.

### Benefits

- Medium viscosity enabling vertical and overhead applications and facilitating complete impregnation of the FRP reinforcing fabrics
- Simple 2:1 mix ratio
- VOC compliant, low odor
- 100% solvent free

### Limitations

- Substrate / ambient temperature must be greater than 40 °F (4 °C)
- Age of concrete substrate should be 21-28 days or within 75% of its 28-day strength
- Do not thin with solvents
- Color may change slightly due to UV exposure
- Cured material will act as a vapor barrier
- Avoid applying material when the temperature is rapidly rising to minimize the effects of moisture vapor transmission

### Typical Uses

#### Recommended for:

- Multi-family housing and dormitories
- Assisted living, nursing homes and hospice care
- Industrial and commercial buildings
- Hotels and motels
- Transportation
- Schools

### Storage & Shelf Life

Store in a cool, dry place at 40-90 °F (4-32 °C) away from flame or other hazards. Shelf life is 24 months when properly stored in unopened packaging.

### Caution

Consult Safety Data Sheets (SDS) and always use appropriate personal protective equipment when handling resins.

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## Typical Fabric and Fiber Properties<sup>1</sup>

PROPERTY	VALUE
Mix ratio	2:1 (by volume)
Color	Part A: Green Part B: Amber Mixed: Green
Pot Life	@ 50 °F (10 °C): 180 min. @ 77 °F (25 °C): 45 min. @ 90 °F (32 °C): 20 min.
Coverage Rates/Ply	50-60 SF/gallon (CF335) 40-50 SF/gallon (CF600) 30-40 SF/gallon (GF875)

## Packaging

COMPONENT	VOLUME	PACKAGE
Part A	52 gallon	55-gal drum
	5 gallon	5-gal pail
Part B	52 gallon	55-gal drum
	2.5 gallon	2.5-gal jug

## Mechanical and Physical Properties

PROPERTY	VALUE
Tensile Strength	6.5 ksi (55 MPa)
Tensile Modulus <sup>1</sup>	300 ksi (2755 MPa)
Tensile Elongation at Break <sup>1</sup>	5.5%
Compressive Strength <sup>2</sup>	10.3 ksi (71 MPa)
Compressive Modulus <sup>2</sup>	290 ksi (2000 MPa)
Specific Gravity	1.1
T <sub>g</sub> <sup>3</sup>	145 °F (63 °C)

### NOTES:

1. Based on tests of cured samples per ASTM D638.
2. Based on tests of cured samples per ASTM D695.
3. Based on tests of samples post-cured for 72 hours at 140 °F. Tested per ASTM E1640.

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