

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 (by volume)
- 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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## Application Data

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
Kit	7.5-gallon kit	
	15-gallon kit	
	156-gallon kit	

## 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
Glass Transition Temperature	140 °F (60 °C)

### NOTES:

1. Based on tests of cured samples per ASTM D638.
2. Based on tests of cured samples per ASTM D695.
3. Test samples are conditioned for 48 hours at 140 °F (60 °C). T<sub>g</sub> values based on long term curing at room temperature conditions. Higher T<sub>g</sub> values may be obtained by post-curing. Contact Milliken Infrastructure Solutions for more information.

Before using any Milliken Infrastructure Solutions, LLC product, the user must review the most recent version of the product's technical data sheet, material safety data sheet and other applicable documents, available at [www.strengtheningsolutions.milliken.com](http://www.strengtheningsolutions.milliken.com) or by calling 1-855-655-6750. LIMITED WARRANTY: Milliken Infrastructure Solutions, LLC is very proud of our innovative RenewWrap™ products (the "Products") and our superior customer service. We hereby warrant to the original purchaser that the Products meet Milliken's standard specifications at the time of delivery from us. If the Products are found to be defective because they do not meet this Warranty, then we will as the sole remedy either (at our option) refund the purchase price for those Products or provide replacement Products (in either case, not including shipping, installation or any other costs). Naturally, we are not responsible or liable for degradation, damage, liability or defect in, or related to, the Products caused by improper storage, use, installation or maintenance, any other party's representations, warranties, actions, or omissions, or acts of God. WE MAKE NO REPRESENTATION OR WARRANTY BEYOND THE EXPLICIT STATEMENTS CONTAINED IN THIS WARRANTY, AND ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, INFRINGEMENT, OR ANY WARRANTIES BASED UPON SAMPLES, MODELS, OR SPECIFICATIONS, ARE HEREBY EXPRESSLY DISCLAIMED. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL WE BE LIABLE TO THE ORIGINAL PURCHASER OR ANYONE ELSE FOR ANY CONSEQUENTIAL, INDIRECT, SPECIAL, OR EXEMPLARY (OR ANY SIMILAR TYPE OF) DAMAGES RELATED TO THE PRODUCTS. As each customer's use of our Products and situation may be different, information we provide, including without limitation, use or installation suggestions, test results, samples, etc. is provided in good faith but without warranty and without accepting any responsibility or liability. Each customer must test and be responsible for its own specific use, installation, application, etc. All sales are exclusively subject to our standard terms of sale posted at [www.milliken.com/terms](http://www.milliken.com/terms) (all additional/different terms are rejected) unless explicitly agreed otherwise in a signed writing. This Warranty is governed by the laws of the United States and the State of South Carolina, U.S.A. (without giving effect to its conflict of law principles), and any party desiring to take action under this Warranty hereby submits to the exclusive jurisdiction of the courts in such jurisdiction and waive any inconvenient forum claims related thereto. In the unlikely event that you have a warranty issue, please contact your distributor or sales representative to discuss and resolve the matter in accordance with this Warranty.

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