



# TuffGlass™ 27

## High Strength Glass Fiber Fabric

### DESCRIPTION

**TuffGlass™ 27 is a custom weave unidirectional glass fiber fabric with fiber oriented in the 0° direction and additional yellow glass cross fibers at the 90°. The TuffGlass™ 27 system is field laminated using environmentally friendly, TuffSat™ saturate, a two-part, 100% solids and high strength structural adhesives to form a glass fiber reinforced polymer (GFRP) system used to reinforce structural elements. TuffSat™ epoxy is certified safe for potable water (ANSI/NSF 61) and incidental food contact.**

### USES:

- Increase load carrying capacities
- Seismic strengthening of columns and masonry walls
- Repair damages to structural parts
- Temporary strengthening
- Changes in structural systems
- Design or construction defects
- Underwater applications

### FEATURES:

- Excellent for underwater applications
- Good high & low temperature properties
- High elongation
- Ambient cure
- Solvent free
- Non-corrosive reinforcement system
- Lightweight flexible fabric
- Can be wrapped around complex shapes
- Used for shear, confinement or flexural strengthening

### TECHNICAL DATA:

Primary Fiber Direction 0° (unidirectional)  
 Areal Weight 27 oz (917 gsm)  
 0% VOC  
 Solvent free

### COVERAGE GUIDE:

### PREPARATION:

**TuffGlass™ 27** is applied directly to the surface of fresh concrete. No surface preparation is necessary.

Typical Data for TUFF GLASS 27		Fiber Properties (Dry)	
Storage Conditions		Store dry at 40°F - 90°F (4°C - 32°C)	
Color		White	
Primary Fiber Direction		0° (unidirectional)	
Weight		27 oz/yd <sup>2</sup> (915 g/m <sup>2</sup> )	
Shelf life		10 years	
Tensile Strength		475,000 psi (3,275 MPa)	
Tensile Modulus		11.6 x 10 <sup>6</sup> psi (79,970 MPa)	
Elongation		4.1 %	
Density		0.095 lb/in <sup>3</sup> (2.62 g/cm <sup>3</sup> )	
Cured Laminate Properties		Average Values (1)	
Tensile Strength		82,280 psi (567 MPa)	
Modulus of Elasticity		3.87 x 10 <sup>6</sup> psi (26,680 MPa)	
Elongation at Break		2.13%	
Thickness		0.04 in. (1.016 mm)	
Strength per Unit Width		3,291 lbs/in. (0.58 kN/mm)	
Design Values (2)			
Tensile Strength		70,600 psi (487 MPa)	
Modulus of Elasticity		3.87 x 10 <sup>6</sup> psi (26,680 MPa)	
Elongation at Break		1.8%	
Thickness		0.04 in. (1.016 mm)	
Strength per Unit Width		2,824 lbs/in. (0.49 kN/mm)	

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