

Woven Fiberglass Fabric



Fiberglass fabric is used in a wide range of industrial applications and is the most widely available and least expensive composite fabric. It is relatively lightweight, has moderate tensile and compressive strength and is easy to handle and machine. High strength, dimensional stability, design flexibility and excellent electrical properties are some of the characteristics that insure optimum performance.

The common types of glass fibers used in composites are E-glass and S-glass. E-Glass or Electrical Glass is the most common. S-Glass or Structural glass is approximately 30% stronger and stiffer than E-Glass and offers better properties at elevated temperatures. ACP's fiberglass fabrics are woven from high quality E-Glass and are sized with an epoxy and polyester compatible finish to enhance wet-out, unless otherwise noted.

| Part | Style | Weave | Weight | Thickness | Count (W x F) | Warp Fiber | Fill Fiber | W-Fiber Strength | F-Fiber Strength |
|--------|-------------|-------------------|--|------------------|---------------|------------|------------|--------------------------|--------------------------|
| .58 oz | 104 | Plain Weave | .58 oz/yd ² | .0012" | 60 x 52 | E-Glass | E-Glass | 68 lbf/in | 59 lbf/in |
| .73 oz | 106 | Plain Weave | .81 oz/yd ² | .0013" | 56 x 56 | E-Glass | E-Glass | 64 lbf/in | 60 lbf/in |
| 1.4 oz | 108 1080 | Plain Weave | 1.42 oz/yd ² 1.41 oz/yd ² | .0025" | 60 x 47 | E-Glass | E-Glass | 89 lbf/in 125 lbf/in | 64 lbf/in 94 lbf/in |
| 2.0 oz | 112 2112 | Plain Weave | 2.1 oz/yd ² | .0035" .0031" | 40 x 39 | E-Glass | E-Glass | 119 lbf/in 120 lbf/in | 100 lbf/in 120 lbf/in |
| 2.3 oz | 2113 | Plain Weave | 2.35 oz/yd ² | .0027" | 60 x 56 | E-Glass | E-Glass | 223 lbf/in | 106 lbf/in |
| 3.0 oz | 116 2116 | Plain Weave | 3.12 oz/yd ² | .0039" .0035" | 60 x 58 | E-Glass | E-Glass | 177 lbf/in 201 lbf/in | 148 lbf/in 181 lbf/in |
| 3.0 oz | 120 | 4H Satin Weave | 3.14 oz/yd ² | .0039" | 60 x 58 | E-Glass | E-Glass | 177 lbf/in | 150 lbf/in |
| 3.7 oz | 1522 | Plain Loose Weave | 3.63 oz/yd ² | .0047" | 24 x 22 | E-Glass | E-Glass | 175 lbf/in | 137 lbf/in |

All the information contained in these properties is believed to be reliable. It is intended for comparison purposes only as each manufactured lot will exhibit variations. The user should evaluate the suitability of each product for their application. We cannot anticipate the variations in all end use and we make no warranties and assume no liability in connection with the use of this information.

Woven Fiberglass Fabric



Fiberglass fabric is used in a wide range of industrial applications and is the most widely available and least expensive composite fabric. It is relatively lightweight, has moderate tensile and compressive strength and is easy to handle and machine. High strength, dimensional stability, design flexibility and excellent electrical properties are some of the characteristics that insure optimum performance.

The common types of glass fibers used in composites are E-glass and S-glass. E-Glass or Electrical Glass is the most common. S-Glass or Structural glass is approximately 30% stronger and stiffer than E-Glass and offers better properties at elevated temperatures. ACP's fiberglass fabrics are woven from high quality E-Glass and are sized with an epoxy and polyester compatible finish to enhance wet-out, unless otherwise noted.

| Part | Style | Weave | Weight | Thickness | Count (W x F) | Warp Fiber | Fill Fiber | W-Fiber Strength | F-Fiber Strength |
|---------|-------|-------------------|-------------------------|-----------|---------------|------------|------------|------------------|------------------|
| 3.7 oz | 1165 | Plain Weave | 3.66 oz/yd ² | .0039" | 60 x 52 | E-Glass | E-Glass | 165 lbf/in | 268 lbf/in |
| 5.4 oz | 1557 | 4H Satin Weave | 5.25 oz/yd ² | .005" | 57 x 30 | E-Glass | E-Glass | 379 lbf/in | 110 lbf/in |
| 5.8 oz | 3733 | Plain Loose Weave | 5.59 oz/yd ² | .007" | 18 x 18 | E-Glass | E-Glass | 377 lbf/in | 328 lbf/in |
| 6.0 oz | 7628 | Plain Tight Weave | 6.10 oz/yd ² | .007" | 44 x 31 | E-Glass | E-Glass | 350 lbf/in | 269 lbf/in |
| 8.7 oz | 7725 | 2x2 Twill Weave | 8.61 oz/yd ² | .009" | 54 x 18 | E-Glass | E-Glass | 440 lbf/in | 360 lbf/in |
| 9.0 oz | 7781 | 8H Satin Weave | 8.87 oz/yd ² | .008" | 57 x 54 | E-Glass | E-Glass | 501 lbf/in | 408 lbf/in |
| 9.6 oz. | 7500 | Plain Weave | 9.6 oz/yd ² | .011" | 16 x 14 | E-Glass | E-Glass | 300 lbf/in | 250 lbf/in |
| 20. oz | 7587 | Mock Leno | 20.1 oz/yd ² | .030" | 39 x 21 | E-Glass | E-Glass | 748 lbf/in | 485 lbf/in |

| Fiber | Density | Tensile Strength | Tensile Modulus | Strain to Failure | Specific Tensile Strength | Specific Tensile Modulus | CTE | Decomposition Temp |
|---------|-------------------------|------------------|-----------------|-------------------|---------------------------|--------------------------|--------------------------|--------------------|
| E-Glass | .095 lb/in ³ | 500 ksi | 10.5 msi | 4% | 5.28 10 ⁶ in | 1.11 10 ⁸ in | 3 x 10 ⁻⁶ /°F | 1346°F |

Technical information is for the stand alone E-glass fiber and not the woven fabrics.

All the information contained in these properties is believed to be reliable. It is intended for comparison purposes only as each manufactured lot will exhibit variations. The user should evaluate the suitability of each product for their application. We cannot anticipate the variations in all end use and we make no warranties and assume no liability in connection with the use of this information.