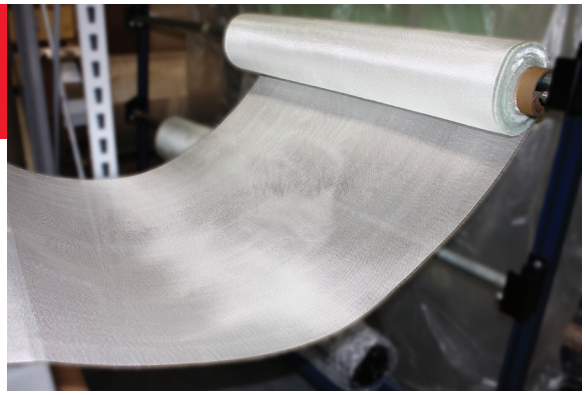
FIBERGLASS FABRICS



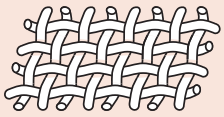
*Used to construct laminate plastic parts and tooling with epoxy and polyester resins, **Freeman fiberglass fabrics** are the finest quality materials manufactured by BGF and are compatible with both epoxy and polyester resin systems. Available by the yard (unless otherwise noted) and in full rolls.*

Specifications

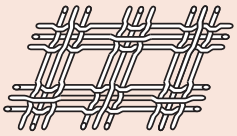
Style	Weight (oz./sq. yd.)	Weave	Thickness (inches)	Yarn Desc. (Warp)*	Yarn Desc. (Fill)*	Yarns/In. (Ends x Picks)	Breaking Strength Warp (lb./in.)	Breaking Strength Fill (lb./in.)	Finish
120	3.12	4 HS	0.005	ECD 450 1/2	ECD 450 1/2	60 X 58	105	87	504 Volan
1522	3.64	Plain	0.006	ECG 150 1/2	ECG 150 1/2	24 X 22	65	60	504 Volan
3733	5.75	Plain	0.008	ECG 37 1/0	ECG 37 1/0	18 X 18	150	115	504 Volan
7533	5.90	Plain	0.009	ECG 75 1/2	ECG 75 1/2	18 X 18	110	100	504 Volan
2532	7.00	Plain	0.011	ECG 25 1/0	ECG 25 1/0	16 X 14	150	100	504 Volan
7532	7.10	Plain	0.010	ECG 75 1/3	ECG 75 1/3	16 X 14	135	100	627 Silane
7725	8.50	2x2 Twill	0.010	ECG 75 1/0	ECG 75 1/0	54 X 18	-	-	504 Volan
1581	8.80	8 HS	0.010	ECG 150 1/2	ECG 150 1/2	57 X 54	198	175	504 Volan
7781	8.71	8 HS	0.009	ECDE 75 1/0	ECDE 75 1/0	57 X 54	242	231	504 Volan
7500	9.64	Plain	0.015	ECG 37 1/2	ECG 37 1/2	16 X 14	235	215	504 Volan
7544	18.23	2 End Plain	0.021	ECG 37 1/2	ECG 37 1/4	27 X 14	450	390	504 Volan
7587	20.10	Mock Leno	0.030	ECG 37 1/2	ECG 37 1/2	39 X 21	420	215	504 Volan
1597	38.00	Triple Plain	0.039	ECG 37 1/4	ECG 37 1/4	30 X 30	700	600	504 Volan

**E = E Glass C = Continuous filament D = 5 micron diameter DE = 6 micron diameter*
G = 9 micron diameter H = 10 micron diameter K = 13 micron diameter

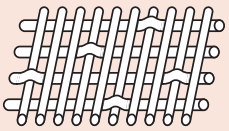
Weave Types



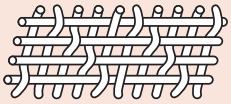
Plain – The warp (length-wise) and fill (cross-wise) yarns cross over and under each other. This weave has the maximum number of interlacings, the most crimp, and the most stability. It is excellent for use in flat panel laminates.



Mock Leno – The yarns run in groups in both warp and fill, locking each other in place at the interlacings. This style gives maximum thickness, good dimensional stability and medium-stiff drapability. Excellent in tooling applications.



Satin – The warp yarn crosses over four or more fill yarns, under one, over four, etc. Very drapable, it conforms well to contoured surfaces in manufactured parts. Often used to reinforce plastics due to high bidirectional strength.



Triple Plain – This special weave features very good drapability and conforms readily to contoured plains.

3 oz. Fiberglass Cloth (#120)
This cloth is tightly woven with a soft, smooth surface, making it ideal for demanding applications where print-through must be minimized or avoided. Commonly used in aerospace and other high-quality fabrications, this cloth conforms easily to contoured surfaces and compound curves.

4 oz. Fiberglass Cloth (#1522)
This lightweight cloth works well for most light-duty applications requiring a clear wet-out. Sometimes referred to as "deck cloth", it is popular in the construction of lightweight models, RC aircraft, surfboards, sailboards, and canoes. It is frequently used as a surfacing fabric to stop print-through when backed by layers of heavier fabric in molded parts.

6 oz. Fiberglass Cloth (#3733)
3733 is a flexible fabric that wets-out transparently and is well suited to a wide range of lightweight, general-purpose applications including laminating, reinforcing and sheathing/waterproofing. It is also widely used in boat building, cedar strip canoes, and lightweight repairs.

6 oz. Fiberglass Cloth (#7533)
This fabric is well suited to various lightweight, general-purpose applications including small craft boat building, reinforcing, sheathing/waterproofing, and lightweight tooling.

7 oz. Fiberglass Cloth (#2532)
Commonly referred to as "boat cloth" because of its wide range of marine construction, this easy-to-use, medium-weight cloth is ideal for waterproofing and repair applications.

7 oz. Fiberglass Cloth (#7532)
This medium-weight, easy-to-use cloth is widely used in marine construction and repairs and tooling applications. Available in full rolls only.

8.5 oz. Fiberglass Cloth (#7725)
This cloth's diagonal weave pattern is highly desired for its cosmetic appearance and is used in many high-performance applications. Its highly conformable properties allow it to fit in tight areas and around complex shapes.

8.8 oz. Fiberglass Cloth (#1581)
This tightly woven fiberglass cloth is used where a high glass-to-resin ratio is required, producing a stronger, lighter composite than is possible with a plain weave. Its eight-harness satin weave pattern enables it to conform around curved surfaces more easily than a plain weave, making it a popular choice in aerospace and other high-end applications.

8.8 oz. Fiberglass Cloth (#7781)
Like 1581, this cloth is used where a high glass-to-resin ratio is required, producing a stronger, lighter composite than is possible with a plain weave. Its tightly-woven, eight-harness satin weave pattern is flatter than 1581 and enables it to conform around curved surfaces more easily, making it a popular choice in aerospace and other high-end applications.

10 oz. Fiberglass Cloth (#7500)
The most popular medium-weight fiberglass fabric, 7500 features an excellent balance of cost, weight, and strength. Its well-known versatility makes it popular for tooling, FRP boat construction, sandwich core panels, waterproofing and other high-strength layup applications.

18 oz. Fiberglass Cloth (#7544)
This heavy-duty cloth features a plain weave that is less "open" than a mock leno weave, resulting in a higher glass-to-resin ratio. It is primarily used in place of multiple layers of a medium-weight fabric where a rapid build-up is required. This heavier cloth's less conformable characteristics make it better suited for flat or slightly curved shapes, and/or as back-up layers behind lighter surfacing layers.

20 oz. Fiberglass Cloth (#7587)
This heavy-duty cloth features a mock leno weave that is more "open" than a plain weave, making it easier to wet-out. It is primarily used in place of multiple layers of a medium-weight fabric when a rapid build-up is required. This heavier cloth's less conformable characteristics make it better suited for flat or slightly curved shapes, and/or as back-up layers behind lighter surfacing layers.

38 oz. Fiberglass Cloth (#1597)
This is the heaviest fiberglass cloth and features a triple weave. It is primarily used with epoxy in applications where a very strong, rapid build-up is required or to reinforce wood. This heavier cloth's less conformable characteristics make it better suited for flat or slightly curved shapes, and/or as back-up layers behind lighter surfacing layers.

Fiberglass Tapes (8.75 oz.)


These plain weave fiberglass tapes are offered in various widths and are used with or without fiberglass cloth to laminate plastic tooling for exact duplication applications. Manufactured with bound/hemmed edges and a 627 silane finish, they are sold in full rolls only. The Unidirectional tape is made with heavy 12 oz. / sq. yd. fiberglass stitched to a 3⁄4 oz. / sq. yd. mat. The mat helps hold the fiberglass together during cutting and laminating.