



GLASS FIBER REINFORCED GYPSUM

Process Overview:

Glass Fiber Reinforced Gypsum (GFRG) is a composite application utilizing naturally occurring mineral gypsum combined with reinforcing fibers. It may also contain polymers to increase product strength. The molding process can be either hand lay-up or a chopped-strand spray method.

Typically, the end product is used for indoor applications with minimal exposure to moisture or other environmental elements. Completed composites are in the form of ornamental or decorative columns, pillars and facades.

SI Veil Design Considerations:

Pearlveil® reinforcement mats perform extremely well in GFRG applications.

Consider the overall desired outcome, either surface enhancement, reinforcement or both.

- Most often, 1-2 layers of ¼ ounce Pearlveil are used on the surface of the part.
- For additional part strength, the designer should consider 1-2 layers of ½ ounce Pearlveil.

Veil Thickness:

Typical Pearlveil materials used in Continuous Lamination are between 3 mil and 10 mil.

Width:

Pearlveil is available at any width up to 120 inches (3.048 m) wide.

Fiber Orientation:

SI Veils are non-woven, continuous strand glass fibers that provide excellent wet out and helps eliminate air entrapment in finished parts.

Color:

All SI Veils are clear in color, making the glass transparent in the finished part.

Binder:

Series 100 Binder is highly soluble in GFRG.

Corrosive Properties:

SI Veils are highly corrosively resistant in harsh, acidic conditions.

Smoke and Fire Suppression:

All SI veils consist of glass mineral fibers that are non-toxic and do not burn.

Post Lamination Finishing:

Parts can be sanded before post painting.

Apperance:

Supplied as roll goods, white in color with uniform fiber distribution and neatly trimmed edges. Each roll is substantially free of holes, glass beads and tails or other foreign contaminants.

Packaging:

Each roll is attached and wound on a heavy duty 4- inch I.D. cardboard core, immediately sealed against contamination in a polyethylene bag and identified with a unique product specific label. Pearlveil, based upon quantities, is usually shipped on a 45 inch x 45 inch wooden pallet. Optional packaging is available.

Storage:

For best performance, all veils should be stored upright in locations with temperatures between 50° F (10° C) and 85° F (30° C) with a relative humidity below 80%.

Quality:

All Pearlveil products are produced in the United States and meet the demanding quality requirements within the industry.

Warranty:

See Schmelzer Industries Product Warranty.

About Schmelzer Industries LLC

Schmelzer Industries Inc, headquartered in Somerset, Ohio is a glass fiber manufacturer, developer and supplier of quality veils and reinforcements into the composites industry. We can be found on the internet at www.siveils.com.

Typical Pearlveil Specifications for GFRG:

Consult factory for additional options.

Veil Classification	Thickness In. / MM	Grams / Sq. M.	Grams / Sq. Ft.	Ounces / Sq. Ft.	Roll Length Ft. +/- 10%	Roll Length Meters	Roll Dia. Nominal
10 Mil	0.010 / 0.0254	35 gr.	3.5 gr.	0.12 oz.	1,750 Ft.	533 M.	16" - 22"
¼ Ounce	0.020 / 0.508	75 gr.	7.1 gr.	0.25 oz.	1,700 Ft.*	519 M. *	20" - 24"
½ Ounce	0.040 / 1.016	150 gr.	14.2 gr.	0.50 oz.	1,700 Ft.*	519 M. *	25" - 28"

* For rolls over 80" wide, the total length may be approximately half the published length.



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