



ELECTRICAL FLAT SHEET

Process Overview:

The Electrical Flat Sheet (EFS) Process is a unique variation of compression molding. Laminates are typically made in sizes up to 4 foot by 8 foot sheets with thickness between 1/16 inch and 6 inches.

Sheets are often then cut into various shapes for electrical insulators such as automotive electrical components, by power companies for transformer isolation, buss bars and large equipment requiring proper electrical isolation.

SI Veil Design Considerations:

Pearlveil is uniquely designed for EFS applications, including:

Veil Thickness / Weight:

Final design should be determined after sample part testing. Typical SI Veils frequently used will range between 10 mil and 20 mil thick.

Width:

SI Veils may be specified up to 120 inches (3.048 m) wide.

Fiber Orientation:

All lightweight veils are non-woven, continuous strand glass fibers that provides excellent wet out and helps elimination air entrapment in finished panels.

Color:

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

Binder Options:

- Series 100 Binder is more soluble and usually selected for Continuous Laminating.
- Series 600 Binder may be selected if the process requires higher tensile properties.
- Other: Consult Factory.

Electrical Properties:

Pearlveil offers excellent electrical resistance for finished parts.

Corrosive Properties:

All SI Veils highly corrosive resistant for parts intended for use in harsh, acidic conditions.

Finish Appearance:

Pearlveil provides outstanding laminate finishes eliminating optical distortion of printed fabrics.

Smoke and Fire Suppression:

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

Post Lamination Finishing:

- The translucent color allows for enhanced resin pigmentation or post painting
 - Parts can be sanded before post painting
 - The glass fibers shear cleanly when holes are punched into the part
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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 50F (10C) and 90F (35C) and 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 SI Veil Specifications for Electrical Flat Sheet Processes:

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	0.010/0.254	35 gr.	3.5 gr.	0.12 oz.	1,750	533	16" - 22"
20 mil	0.02/0.508	75 gr.	7.1 gr.	0.25 oz.	1,700	519	25" - 28"
30 mil	0.03/0.762	105 gr.	9.5 gr.	0.34 oz.	1,400	427	25" - 28"
1/2 Ounce	0.04/1.106	150 gr.	152.9 gr.	0.5 oz.	865*	264*	25" - 28"

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



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