

### Product Introduction

Surfacing veils are used extensively in production of FRP products used in corrosive environments. Surfacing Veils are non-woven materials, composed of uniformly distributed glass fiber strands. They are designed to add reinforcement at the surface of a laminate and provide a smooth, resin-rich, durable surface. The surface layer is an aesthetic enhancement and corrosion resistant for finished parts, such as chemical tanks, pipes and equipment, and the weather-ability of wind generators and turbine blades. Our company provides two types of veils: E-glass veil (V1 series) and C-glass veil (V2). Both of them are mainly applicable to hand lay-up process, Filament winding process and others.

### Product Description

Surfacing Veils are manufactured to meet ISO 9001 standards. They are composed of wet-laid, randomly dispersed E-glass or C-glass fiber strands bonded with an appropriate resin. They are characterized by uniform fiber dispersion, a smooth surface, soft hand-feeling, low binder content, unbreakable and long lifetime property, fast resin impregnation and good mold obedience. E-glass veils have good insulation property, while C-glass veils provide better corrosion resistant liner. Surfacing Veils are applicable to FRP molding processes such as hand lay-up, Filament winding, vacuum injection and press molding, etc.

### Packaging

V1 and V2 Surfacing Veils are 50 inches in standard width, 300 meters or 1500 meters in length. They are wound on a

cardboard inner tube with an inside diameter of 15cm (6"). The 300 meter rolls are wrapped in polyethylene film and packed in cartons (1 roll per carton), which are then packed on pallets. For the 1500 meter rolls, it is one roll per pallet.

Special package can be available according to customer's requirements.

### Storage

Cartons containing the rolls of glass fiber veil should be stored vertically on a pallet. Stowing material must have smooth surfaces without sharp edges.

Carton should be handled with care and with the appropriate equipment in order to prevent any damage. It is recommended that the material is stored in a cool dry area in which the temperature should not exceed 35°C (95°F) and the relative humidity should be kept below 75%. Material should remain in its original packaging until immediately before use. It is advised that stock rotation of the material is exercised. If the above conditions are respected, the material should not undergo significant changes when stored for extended periods of time.

### Stacking

To ensure safety and avoid damage to the product, skids should not be stacked more than two high. When stacking two pallets high, care should be taken to correctly and smoothly place the top pallet.

### Customer Benefits

- High mechanical strength during production of finished products
- Absolute rot proof and resistant to all weather conditions
- Good dimensional stability
- Chemically inert and non-toxic
- Allow a uniform impregnation and superior impact resistance
- High wet-through and wet-out speed
- Excellent chemical resistance



# FIBERLINK INC.

## Product Data

Table 1: E-glass Veil

ID Number	Filament Diameter (Microns)	Thickness (mils)	Density (g/m <sup>2</sup> )	Styrene Solubility	% Binder Content	% Moisture Content
V1-030	9	11-13	30 ± 3	High	≤ 10	≤ 0.5
V1-050	9	19-21	50 ± 4	High	≤ 10	≤ 0.5
V1-090	16	31-33	90 ± 6	Medium	≤ 25	≤ 1.0

ID Number	Penetrating time (two layers, second)	Tensile Strength (MD, N/5cm)	Length/Roll (/feet)	Compatible Resin	Compatible Process
V1-030	≤ 10	≥ 25	300/984 1500/4921	Polyester/Vinyl ester/Epoxy	Hand lay-up/Filament winding/Spray-up/Vacuum injection/Press molding/Dry-winding/Centrifugal Casting
V1-050	≤ 15	≥ 40	300/984 1500/4921	Polyester/Vinyl ester/Epoxy	Hand lay-up/Filament winding/Spray-up/Vacuum injection/Press molding/Dry-winding/Centrifugal Casting
V1-090		≥ 400	300/984 1500/4921	Polyester/Vinyl ester/Epoxy	Roofing

Table 2: C-glass Veil

ID Number	Weight per Area Unit (g/m <sup>2</sup> )	% Moisture Content	% Binder Content	Tensile Strength MD (N/50mm)
V2-030	30 ± 3	≤ 0.2	6.0 ± 2.0	≥ 20
V2-050	30 ± 3	≤ 0.2	6.0 ± 2.0	≥ 40

ID Number	Filament Diameter (μm)	Thickness (mils)	Penetrating time (two layers, second)	Length (m/feet)	Compatible Process
V2-030	13	10-12	10	300/984 1500/4921	Hand-lay up/Filament winding
V2-050	13	18-20	15	300/984 1500/4921	Hand-lay up/Filament winding

## Disclaimer of Liability

This data is offered solely as a guide in the selection of a reinforcement. The information contained in this publication is based on actual laboratory data and field test experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability arising out of its use or performance. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing any application to determine its suitability before committing to production. It is important for the user to determine the properties of its own commercial compounds when using this or any other reinforcement. Because of numerous factors affecting results, we make no warranty of any kind, express or implied, including those of merchantability and fitness for a particular purpose. Statements in this data sheet shall not be construed as representations of warranties or as inducements to infringe any patent or violate any law, safety code or insurance regulation.