

## California Combining Corp.



### PRODUCT » Fabric for fabric structures

California Combining's tent products include a 61-in. wide high-gloss translucent and a high-gloss opaque tent vinyl. The high-gloss translucent tent vinyl is available in 10–18 oz. weights in a variety of colors. The high-gloss opaque tent vinyl is available in both 15- and 18-oz. weights, 61-in. wide. The 18-oz. weight is available in a variety of constructions to meet your specific requirements. These products are used in manufacturing of event tents, canopies, shade structures, fencing, and much more. California Combining's PVC-coated mesh is available in various shade factors for use in fencing, shade covers, and tarp covers. It is produced in both 61- and 72-in. widths in eight standard colors. Custom colors are also available.

### FEATURES/ADVANTAGES

- » Tent vinyl comes with a high-gloss finish and added UV inhibitors for longer life
- » Tent vinyls are fire retardant to meet a variety of codes
- » Tent vinyl comes in standard stock colors, custom colors, and stripes of various sizes
- » PVC mesh is produced in stock colors with various constructions, as well as custom colors with a low minimum
- » PVC mesh is fire retardant to meet California Fire Marshall codes.

### TECHNICAL INFORMATION

California Combining Corp.'s tent vinyls are produced with the highest quality vinyls, which contain high levels of UV resistance, cold crack, woven, and weft-inserted scrim. The reinforcing polyester scrim comes in various strengths, ranging from 500d, 1000d and 1300d. All our vinyls meet MVS302 and NFPA701 fire codes.

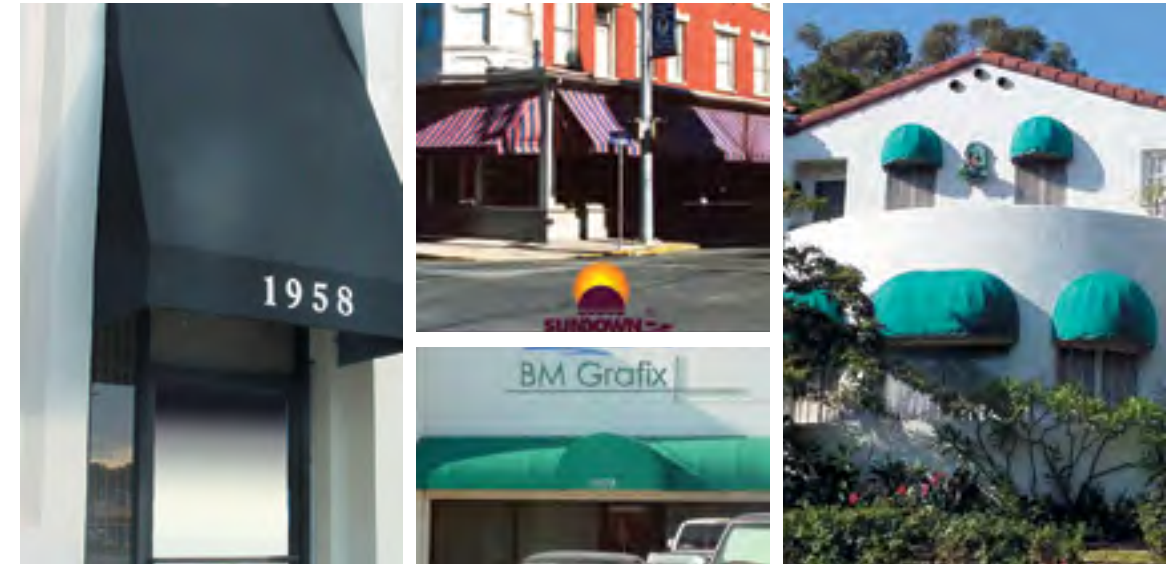
### COMPANY PROFILE

California Combining Corp. has provided high quality laminated products to a variety of industries for over 50 years. Their product line features reinforced vinyl laminates in a variety of weights, widths and colors. California Combining is also one of the leading suppliers of banner vinyls. In addition to the stock line of tent products, California Combining has the ability to produce custom products in reinforced vinyl and PVC-coated mesh, as well as laminating fabrics, foam, urethanes, vinyls, and paper, even producing vinyl stripes for event tents.

### CONTACT INFORMATION

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## Covin Sales & Converting



### PRODUCT » Fabric for awnings & canopies

Covin's Sundown solution dyed acrylic fabric is the perfect fabric for awning and marine applications. In addition to the Sundown fabric, we are now stocking three lines of fire retardant outdoor fabrics to meet the various fire codes. We stock and distribute the SundownFR, WeathermaxFR, and Firefoil products. Each product has its own unique look, colors, performance characteristics and applications. We also carry a PVC backed version of our Sundown fabric, which is a waterproof alternative. In addition to the awning fabrics, we also carry a line of woven polyester and nylon fabrics, in various weights and coatings, that are used in a variety of sewn products such as bags, backpacks, luggage, covers, medical devices and much more.

### FEATURES/ADVANTAGES

- » *Sundown* has a unique line of solid colors and stripe patterns
- » Exclusive "beefy" finish on the Sundown fabric makes it easy to sew
- » Ultrasonically sealed selvage
- » No extra charge for premium colors
- » *SundownFR* is the closest FR outdoor fabric in appearance to solution-dyed acrylic
- » *WeathermaxFR* outperforms the competition in strength and abrasion resistance, as well as being very water repellent
- » *Firefoil* is the perfect fabric for extreme conditions, as well as exceeding your everyday needs.

### TECHNICAL INFORMATION

Sundown 310g is 100% solution-dyed acrylic in both 47 & 60 in. widths. SundownFR 9oz. is a solution-dyed polyester that meets CSFM Title 19 and NFPA701; WeathermaxFR 9.25 oz. is a solution-dyed saturamax fabric that meets CSFM Title 19, NFPA701 and CPAI84. Firefoil 15 oz. is a acrylic-coated poly/cotton that meets CSFM Title 19, NFPA701 and CPAI84.

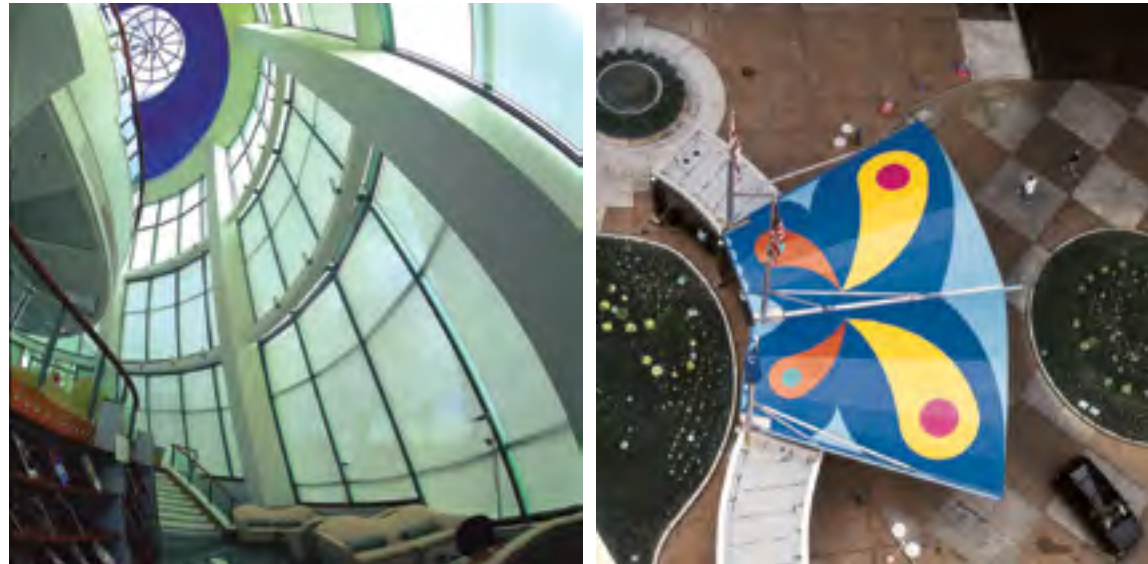
### COMPANY PROFILE

Covin Sales & Converting is the exclusive U.S. distributor of Sundown, 100% solution-dyed acrylic, manufactured in Europe by Saulea S.A. Covin carries a stock line of nylons and polyesters of different weights and coatings. Covin also laminates both open- and closed-cell foams to fabrics and offers packages with stock fabrics. Laminating, die cutting and sheeting are all in-house processes.

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**Ferrari Textiles Corp.**



**PRODUCT » Fabric for awnings and screens**

Ferrari Color Design products are high-performance fabrics manufactured using the exclusive Ferrari Précontraint® technology of unrivaled mechanical properties. With our complete Soltis® range of textiles, Ferrari combines transparency with advanced technical features to provide thermal and light protection. The unparalleled qualities of dimensional stability, surface evenness, minimal thickness and performance strength make the different weaving styles of the Soltis range suitable for all architectural situations.

*Color Design fabrics:* in 40 solid colors and 12 stripes which match to the solid colors, this product line is ideal for almost any application. *Soltis 86, Soltis 92 and Soltis 93* are available in a wide range of colors and widths to meet your needs. Perfect for interior and exterior applications, they can be used solar shades, fixed awnings and shadesails. *Soltis B92N, Soltis B99 and Soltis B702* offer flexibility when total blackout is required. *Soltis 99 was the first solar screen material* that featured glare reduction properties on the actual textile. It's for interior applications only and features 17 colors.

**SUSTAINABLE FEATURES/ADVANTAGES**

- » 100% recyclable composite textiles through Ferrari's Taxyloop® process
- » Solid fabrics and meshes benefiting from Ferrari's Précontraint technology properties and available in various widths
- » Fabric warranties 5 and 8 years
- » Fire and building code certifications available upon request.

**RECYCLING TECHNOLOGY**

The Ferrari Group is firmly committed to a policy of sustainable development. With the introduction of our Taxyloop process, the Ferrari Group is able to relieve concerns about the impact of our PVC-coated textiles upon the environment. Taxyloop allows us to recycle 100% of Ferrari composite textiles and membranes and return individual components back to industrial clients for re-use.

**COMPANY PROFILE**

Since 1974, the family-owned Ferrari Group has focused on developing innovative composite textiles used in many different markets including textile architecture, awning, tent, solar protection, marine, sign and industrial. As a vertically integrated company, we manufacture and weave all of our fibers, coat and finish our fabrics in Europe, all under ISO 9001 requirements. With our worldwide network of Ferrari offices, distributors and agents, Ferrari offers outstanding service to its various clients, partners, manufacturers and project specifiers.

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**Ferrari Textiles Corp.**



**PRODUCT » Fabric for fabric structures**

- » T2—This product group is designed for the long term static application; tension structures and buildings being the most common uses. This product features a complete PVDF surface treatment with an additional whitening agent which adds an additional barrier from the elements. Offering standard warranties of up to 15 years
- » Batyline® SK 300 —Designed as an interior tension product; it features a glass weave with a silicone coating allowing it to act as a light diffuser as well as adding shape to any project. High translucency and non-combustible, it can be used in front or rear projection applications.
- » Soltis® —Providing protection from the elements and maintaining a view at the same time are a hard combination to achieve. Soltis solar protection fabrics give you these and many more features
- » Stamisol® FT 371 and FT 381 — Designed to provide long-term façade solutions in a wide range of colors (FT 381) and/or printable to meet your unique applications (FT 371). Maintain the view while you reduce energy costs.

**SUSTAINABLE FEATURES/ADVANTAGES**

- » 100% Recyclable PVC
- » Précontraint® Technology —there is no substitute for equal tension
- » Shadesail Website —with pertinent load and footing data available
- » CSI spec documents available on demand.

**TECHNICAL INFORMATION**

Précontraint technology from Ferrari is most easily explained as the equal tensioning of the base fabric in the warp and fill direction prior to and during the coating process. The benefits that this type of patented manufacturing provides include more dimensional stability, more PVC protection than typical coated fabrics, and longer life spans, to name just a few.

**COMPANY PROFILE**

The Ferrari Textiles Group has continued to lead the industry with technical innovations. Ever since the family created Précontraint Technology we have looked at ways to continuously improve our products and the industry. In 2004, Ferrari first introduced PVC recycling at our Taxyloop® facility in Italy, allowing PVC fire retardant technical membranes to be considered a "green" product. Ferrari Textiles offers a wide range of products and services: from Solar Protection, Awning, Digital, Tensile Architecture, Interior Design, and Textile Façade products. With a complete international network of offices, Ferrari Textiles offers the most complete solution for your next fabric project.

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**Glen Raven Custom Fabrics Inc.**



**PRODUCT » Fire-retardant awning and shade structure fabric**

Firesist™ awning fabric represents the latest Glen Raven fire-retardant technology, specifically designed for the commercial awning, canopy and shade applications.

**FEATURES/ADVANTAGES**

- » Weather resistance: With over 100 years of outdoor awning experience, Glen Raven has engineered new coatings and finishes to maximize water repellency, sunlight resistance and ease of cleaning.
- » Color retention & strength: The deep, rich colors of Firesist deliver the long lasting good looks you expect from Glen Raven. Workability improvements make fabrication easier and keep the installation looking great for years.
- » Styling: Firesist has a refreshed color pallet with 12 popular solids and new tweeds.

**TECHNICAL INFORMATION**

Sunbrella Firesist features a number of proprietary ingredients and processes. Sunbrella fiber is formulated with the most effective coloration and UV-resistant package in the marketplace. Sunbrella fabrics are treated with a special finish that resists water and stains. Sunbrella is inherently resistant to mildew, rot, stains and atmospheric chemicals making it ideal for awnings, market umbrellas and other exterior applications. Sunbrella fabrics are available in 46, 60 and 80 in. widths. Fabric weight is 9.25 oz./sq. yd., 314 kg/m<sup>2</sup>.

**COMPANY INFORMATION**

Glen Raven revolutionized the way the world thinks about how beautiful fabrics perform with the introduction of Sunbrella in 1961. Today, durable, easy-care Sunbrella is available in thousands of sophisticated styles, patterns and colors for wherever people live, work and play.

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**Glen Raven Custom Fabrics Inc.**



**PRODUCT » Signage graphics system**

Sunbrella® Graphics System is an affordable and cost effective tool that allows designers to easily add graphic applications to their projects. The system was developed and field-tested by awning and sign professionals. Best of all, the system carries a warranty backed by Glen Raven, the manufacturer of Sunbrella fabrics. The durability and beauty of Sunbrella fabric along with the Sunbrella Graphics System are transforming the art of creating graphics into a science.

The 3M Scotchcal Electrocut pressure sensitive films are suitable for use on rigid framed structures. The new SGS Digital Print Film is a thermal activated film which, once applied, produces a more durable bond, the added flexibility allows it to be applied in applications such as market umbrellas, pop up tents, and marine applications where a pressure sensitive film would not be recommended.

**FEATURES/ADVANTAGES**

- » Graphics created by the system have crisp, distinct lines and are bonded securely to Sunbrella fabrics.
- » Supports complex, multicolor graphic and logo applications.

**TECHNICAL INFORMATION**

The film is either cut or digitally printed to design specification. The Sunbrella awning fabric is placed on the unit's flat bed, and the film is positioned on top of the fabric. After the top is closed and secured, the vacuum system pulls the fabric and film tightly together and heat lamps create a tight bond between them.

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## Glen Raven Custom Fabrics Inc.



### PRODUCT » Fabric for awnings, canopies and outdoor structures

For more than 45 years, Sunbrella® performance fabrics have redefined outdoor living. The newest generation of Sunbrella awning fabrics continues that legacy, with a wide variety of rich solids, sophisticated textures and stunning stripes and a 10-year limited warranty that brings peace of mind to our customers. Our fabrics help you create shaded spaces and structures that are as beautiful as they are functional, with added benefits such as the ability to help reduce energy costs, protect interior furnishings and extend outdoor living spaces.

#### FEATURES/ADVANTAGES

- » *Superior durability:* able to withstand the elements without fading or weakening
- » *Resists stains:* holds up against the toughest stains
- » *Breathable:* fabric construction allow it to breathe, resisting mildew
- » *Easy to maintain:* cleaning made easy because most stains can be removed with a mild soap & water solution.

#### TECHNICAL INFORMATION

Sunbrella features a number of proprietary ingredients and processes. Sunbrella fiber is formulated with the most effective coloration and UV-resistant package in the marketplace. Sunbrella fabrics are treated with a special finish that resists water and stains. Sunbrella is inherently resistant to mildew, rot, stains and atmospheric chemicals making it ideal for awnings, market umbrellas and other exterior applications. Sunbrella fabrics are available in 46, 60 and 80 in. widths. Fabric weight is 9.25 oz./sq. yd., 314 kg/m<sup>2</sup>.

#### COMPANY INFORMATION

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## Hiraoka & Co. Ltd.



### PRODUCT » Back-lit & front-lit awning fabrics

Awnmax is a premium backlit and front-lit awning materials designed for large commercial, institutional, retail and franchise related projects.

Awnmax is the first choice with awning manufacturers and specifiers where quality, appearance, long-term durability, color fastness, strength, ease of maintenance and proven performance are required.

The 19.1 oz. material features a unique and patented scrim (base fabric) which makes Awnmax the strongest awning material manufactured. Ultra-smooth surface is treated with a specially formulated acrylic topcoat for ease of maintenance.

The Awnmax family of products includes Awnmax, Awnshade, Awnscreen and SDTransparent Membrane.

#### SUSTAINABLE FEATURES/ADVANTAGES

- » *Proven performance:* over 10-year proven performance
- » *Stronger:* exceedingly strong, better resistance to punctures and tearing
- » *Ease of maintenance:* stays cleaner longer, easier to clean when required
- » *Best translucent quality:* two to five times more translucent. Not just brighter, but better quality illumination
- » *Color consistency:* Awnmax offers un-paralleled color (dye lot) consistency from production to production.

#### COMPANY PROFILE

Hiraoka Co. Ltd. of Tokyo, Japan, was established in 1902 and celebrated its 108th anniversary this year. Hiraoka is the world leader in PVDF coating and was the first to implement this technology nearly 30 years ago.

#### CONTACT INFORMATION

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**Hiraoka & Co. Ltd.**



**PRODUCT » Translucent, semi-transparent, transparent & opaque material for fabric structures**

We manufacture four classes of fabric for architectural structures that allow you to select the level of light that enters the structure. Translucent, semi-transparent, transparent and opaque series are available with our PVDF-IIE surface for supreme dirt resistance, outstanding durability, flame retardancy and UV blocking properties.

This series is available in high gloss finish with a 15 and/or 20-year warranty and in white, or custom colors by special order except 104T. The 104T range for light structures is available in opaque and 13 fade-resistant colors with a 10-year warranty.

Our newest innovation is the semi-transparent series which offers high light transmission combined with high tensile strength. This series can be used together with our translucent or colored fabrics under the same architectonics.

**SUSTAINABLE FEATURES/ADVANTAGES**

- » All of our high quality fabrics feature our new PVDF-IIE surface treatment that attracts less dirt and is easier to clean and maintain than other fabrics
- » Our products have a special anti-wick treatment to prevent capillary action from drawing in unwanted moisture and associated stains into the base cloth. This is important for fabric structures where back lighting by the sun can highlight any ugly stains

**TECHNICAL INFORMATION**

Item	Weight (oz/in)	Strip Tensile (lbs/in)	Translucent series		Semi-transparent series		Transparent series	
			Light Trans. (%)	Light Trans. (%)	Item	Weight (oz/in)	Strip Tensile (lbs/in)	Light Trans. (%)
104T	19	283/257	-	-	SA-1800	25	274/242	58
102T -IIE	24	354/354	13	40	SA-4180	28	142/127	63
212T -IIE	28	514/514	12	35				
312T -IIE	32	651/651	11	30				
412T -IIE	45	971/834	8	-				

**COMPANY PROFILE**

Hiraoka Co. Ltd. of Tokyo, Japan, was established in 1902 and celebrated its 109th anniversary this year. Hiraoka is the world leader in PVDF coatings and was the first to implement this technology nearly 30 years ago.

**CONTACT INFORMATION**

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**Intertape Polymer Group®**



**PRODUCT » Fabric for fabric structures**

Where innovation meets the need for creative lightweight structure applications, the NovaShield™ family of membrane structure fabrics offers you a variety of solutions. We are the leader in polyethylene membrane structure fabrics. IPG's investment in our state of the art extrusion coater enables us to offer the widest variety of coating compositions and possibilities in the industry. Our fabric has been used in frame supported structures for over 15 years. NovaShield is established as the preferred membrane of choice worldwide for many applications.

**SUSTAINABLE FEATURES/ADVANTAGES**

- » 100% recyclable: Our polyethylene fabrics are easy to recycle since they are a combination of high- and low-density polyethylene
- » Patented weave produces incredible strength-to-weight properties versus many traditional membrane fabrics
- » Fabric widths of up to 153 in. Creates less seams in cover
- » Non-polar surface: For cleaning, use a mild soap and water solution; no need for solvents
- » Lightweight: 12 to 15 oz./ sq. yd. make for easier and less expensive installations that translate into reduced project costs

**TECHNICAL INFORMATION**

NovaShield achieves excellent strength-to-weight ratios compared to other traditional fabrics; Co-extrusion capability allows us to create multi-layer coatings with different compositions and combinations. This technology allows us to create 100% opacity and enhanced UV protection; ArmorKote™ Advanced Coating Technology has improved our abrasion resistance, flex crack resistance and seam strength. NovaShield is the only Polyethylene membrane structure fabric that has California Fire Marshal Certification for our FRU products.

**COMPANY PROFILE**

Intertape Polymer Group® is a world leader in developing, manufacturing, and marketing innovative polyolefin coating technologies used in protective coverings, packaging, and environmental conservation products. IPG has a diverse product offering, selling to many growing end-user markets globally including NovaShield Membrane Structure Fabrics, AquaMaster™ geomembranes, a wide variety of building/construction products, specialty fabrics, and composite paper packaging for various consumer packaged goods markets.

**CONTACT INFORMATION**

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## Mehler Technologies Inc.



### PRODUCT » Fabric for tension structures

Valmex® Mehatop F is smooth, strong and easy to fabricate. Valmex is a customized membrane material for permanent and semi-permanent structures with a wide range of applications, such as walkway roofs, canopies, tents, sound shells, airplane hangars, air supported structures, radomes, pavilions and carports. Valmex offers durability, water and dirt repellance, and high temperature stability. It is available in translucent, opaque and color.

Polymar® Tent fabrics provide maximum stability and resistance to temperature, moisture and dirt. It doesn't shrink or bag, and the acrylic top coating makes it easy to clean. High quality, low-wick polyester yarns in the base fabric prevent bacteria and fungus growth at the edges and welded seams. It is also available in translucent, opaque and color.

#### TECHNICAL INFORMATION

*Valmex—Structure:* High-tenacity, low-wick PES fabrics, coated with PVC and top-coated with weldable PVDF. Classified strength types in wide widths (98 in./250 cm); available in standard. Meets California Fire Code title 19 and also NFPA 701.

*Type I FR 700:* 25 oz./sq. yd. (60 kN/m); *Type II FR 900:* 27 oz./sq. yd. (84 kN/m); *Type III FR 1000:* 31 oz./sq. yd. (120 kN/m); *Type IV FR 1400:* 40 oz./sq. yd. (150 kN/m)

*Polymar—Tent:* Low-wick PES fabrics, coated with PVC and both sides acrylic top-coated. Available in 98 in. width. Meets California Fire Code title 19 and also NFPA 701.

*Style 7216—Poly Prima:* 19 oz./sq. yd.; *Style 8509—Poly Color:* 19 oz./sq. yd.; *Style 8596—Poly Opaque:* 19 oz./sq. yd.

#### COMPANY PROFILE

Mehler originated in 1837 and evolved into a leading manufacturer of architectural and tent coated fabrics, giving them the experience to create the highest quality products.

As a global firm, Mehler has weaving, coating, and top-coating plants located in Germany and the Czech Republic. In the United States, Mehler's central office and warehouse is located in Martinsville, Virginia. There are also two other warehouses located in Los Angeles and Chicago, Illinois to serve customers throughout the United States.

#### CONTACT INFORMATION

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## Obeikan Technical Fabrics Co. Ltd. (OTF)



### PRODUCT » Fabric for tents, awnings and tensile structures

OTF's diverse range of tensile fabrics includes PVC-coated polyester and PTFE-coated glass fiber fabrics. PVC-coated tensile fabrics are available in different weights ranging from 650gsm to 1350gsm with either acrylic or PVDF surface treatment. We distribute under the trade names Obetex™ and Blockout™, widely used to build tents, canopies, air supported structures, car parking, marquee tents and event tents. Obetex is available in: Type I (700gsm), Type II (900gsm), Type III (1100gsm) and Type IV (1350gsm). Blockout fabric available in 650 and 800gsm, both in acrylic and PVDF surface treatment. Used for military shelters, refugee shelters, temporary warehouses and agriculture storage venues in extreme weather conditions.

#### SUSTAINABLE FEATURES/ADVANTAGES

- » Fire retardant and UV protection
- » Enhanced cleanability using PVDF surface treatment
- » Life span of 5–10 years
- » PVC fabric roofs can be retentioned or easily replaced
- » Can be recycled and reused for various applications
- » Warranties available of between 3–10 years.

#### TECHNICAL INFORMATION

Support Cloth: High tenacity polyester woven fabrics  
Lacquer Type: PVDF or Acrylic  
Tensile Strength: Ranging between 3000/2500 N/5cm to 5000/4500 N/5cm  
Tear Strength: Ranging between 250/200 N to 1000/900 N  
FR Rating: Self-extinguishing fabrics rated with NFPA 701, B1 certifications  
Extreme Working Temperature: -30°C up to +70°C

#### COMPANY PROFILE

OTF produces and exports PVC/PVDF-coated polyester fabrics and PTFE-coated glass fiber fabrics. An industry leader, OTF's value-added products, coupled with excellent customer services benefit clients for whom infrastructure quality, efficiency and reliability are critical. The company started when Obeikan Investment Group supplied 3 million m<sup>2</sup> of PTFE fabric to the Mina Tent Project, Dec. 1998. OTF focuses on sustainable development, and the efficient use of energy at its production facilities to reduce carbon foot prints.

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## Obeikan Technical Fabrics Co. Ltd. (OTF)



### PRODUCT » Fabric for long lasting fabric structures

OTF produces high quality PTFE-coated glass fiber fabrics using 3-, 6- and 9-micron yarns for various product types that match a wide range of architectural applications, with a life expectancy of over 30 years for some products. Obeflon™ is the trade name for OTF's PTFE-coated fabrics designed to withstand extreme weather. Obeflon is predominantly designed to deliver consistent and highly reliable performance for prestigious projects. Traditionally white in color (after bleaching), Obeflon also can be produced with custom colors under certain terms. Typical applications include roof tops, membrane structures and fire proof tents.

#### SUSTAINABLE FEATURES/ADVANTAGES

- » PTFE fabric helps repel and release stains, reducing energy consumption and water. Reduction of water and energy usage results in increased lifespan of fabric and lower impact on the planet
- » Lower U-Values of Obeflon reduces heat transmission
- » Fire proof rating
- » Life span of up to 30 years
- » Very low maintenance.

#### TECHNICAL INFORMATION

Support Cloth: Woven glass fiber fabrics  
 Thickness of coated fabric: Ranging between 0.63mm to 0.95mm  
 Fire Proof rating: Class A2  
 Feature strong UV resistance and reflecting over 70% of sunlight  
 Strong resistance to stains, atmospheric chemicals and fungus make it the ideal choice for various outdoor applications.

#### COMPANY PROFILE

OTF has been supplying PVC/PVDF and PTFE fabrics to the worldwide markets for countless projects in the Middle East, North Africa, Americas and Asia. OTF developed its coated glass fiber fabrics to match international standards and to meet today's needs of the tensile fabrics industry. To control the overall value chain, OTF's state-of-the-art production facilities in Riyadh include yarn manufacturing, chemical mixing and base fabric weaving plants. Located in Saudi Arabia, OTF has the competitive advantage of sourcing quality raw materials required along the manufacturing chain. OTF has sales offices in EMENA region with the head office in Riyadh, and distributes in many countries.

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## Plastatech® Engineering Ltd.



### PRODUCT » Fabric for fabric structures

Strength and stability: High-Point® Architectural Fabrics, by Plastatech Engineering Ltd. feature extraordinary biaxial strength and greater flexibility. Specially selected raw materials contribute towards the fabric's ability to maintain its shape and vibrancy even in areas with extreme temperature fluctuations, blistering UV rays and harsh environmental elements.

Long-lasting finishes: Our specially developed liquid cross-linked polyurethane topcoat responds to elements such as pollutants, rain, high-wind and snow. This topcoat contributes towards the fabric's vibrancy so it will look good for years to come. Plastatech's High-Point fabrics are used to manufacture frame and air supported structures such as military shelters, temporary warehouses, storage domes, hangers, temporary shelters, agriculture storage liners and garages.

#### FEATURES/ADVANTAGES

- » A proprietary high-thread count scrim that keeps accidental punctures or tears from spreading
- » A water-repellent scrim that obstructs water absorption and eliminates wicking
- » Specially-coated yarns that inhibit mildew and bacterial growth
- » Top-coat finish that protects against dirt and contaminants
- » Passes fire tests: CSFM; ASTM E84, UBC 31-1; CAN/ULC-S 109-M87; NFPA 701-2004 Test Method 1 and 2; CAN/ULC-S102.2-03

#### TECHNICAL INFORMATION

Formula options to modify film performance include:  
 Printability, Chemical resistance; Anti-static properties; High temperature resistance; UV-resistance; IR reflectivity; Electrical resistance; Prohibiting microbial, mildew and bacterial growth; Flame resistance

#### COMPANY PROFILE

Plastatech Engineering Ltd. is a responsive, close-knit family-owned and operated business dedicated to ensuring the success of our customers by providing the highest quality calendered and PVC-based films, knitted fabrics and laminates. The high performance of the single-ply membrane that Plastatech supplies to Duro-Last® Roofing Inc. has helped the Duro-Last roofing system become known as the "World's Best Roof." High-Point architectural fabrics are derived from the proven formulation used to manufacture long-lasting single-ply roofing.

#### CONTACT INFORMATION

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 www.plastatech.com

**Saint-Gobain Performance Plastics Corp.**



**PRODUCT » Fabric for fabric structures**

Sheerfill® and Ultralux® are trademarks for a family of membranes used in permanent structures. The composite is made of fiberglass yarns and Teflon® (polytetrafluoroethylene). Sheerfill and Ultralux products are available in a range of strengths and light transmission levels, providing the user with a wide choice of membranes to cover virtually any size structure from a full-sized stadium to a relatively small skylight. All Sheerfill and Ultralux membranes conform to rigid fire and building codes for permanent buildings.

Sheerfill and Ultralux are registered trademarks of Saint-Gobain Performance Plastics Corp. Teflon is a registered trademark of E.I. Dupont de Nemours.

**FEATURES/ADVANTAGES**

- » Highest quality raw materials: Saint-Gobain uses Beta® fiberglass yarns and Teflon Fluorocarbon resins
- » Meets or exceeds fire codes for permanent buildings: All of Saint-Gobain’s membrane products have been rated as noncombustible
- » 30 years of experience: Saint-Gobain has been weaving and coating permanent architectural membranes for over 30 years, and was a part of the team that originated the concept of permanent architectural membranes
- » Long lasting life: 20+ years before replacement

**TECHNICAL INFORMATION**

The manufacturing of Sheerfill and Ultralux products is carried out under the control of Saint-Gobain Performance Plastics. Incoming Beta yarn is tested for conformity and brought into our weaving plant. All steps in the weaving process are monitored for quality and uniformity.

The coating process assures total encapsulation of the fiberglass yarns and the formation of a weather tight barrier of Teflon resin. The result is a uniformity of the physical characteristics on a roll-to-roll basis.

**COMPANY PROFILE**

For more than four decades, Saint-Gobain Performance Plastics and its family of companies have supplied innovative, high-performance polymer products for the most demanding applications.

With a tradition that goes back 300 years to the founding of the Compagnie de Saint-Gobain as a glassmaker in France, Saint-Gobain has continued to find ground-breaking ways to transform material ranging from plastics to glass. Today, Saint-Gobain is a leader in each of its businesses, including flat glass, glass containers, insulation, reinforcements, building materials, abrasives, industrial ceramics and piping.

**CONTACT INFORMATION**

Saint-Gobain Performance Plastics Corp.  
701 Daniel Webster Hwy.  
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Fax +1 603 424 9012  
marcel.dery@saint-gobain.com  
www.sheerfill.com

**Saint-Gobain Performance Plastics Corp.**



**PRODUCT » Fabric liners for fabric structures–acoustical**

Fabrorb® is the trademark for a family of acoustically absorptive membranes used as liners with Saint-Gobain’s Sheerfill® and Ultralux® architectural membrane systems. A Fabrorb membrane serves not only to attenuate sound but also to enhance the thermal characteristics of fabric roof systems. Fabrorb materials conform to rigid fire and building codes for permanent buildings.

Fabrorb is a registered trademark of Saint-Gobain Performance Plastics Corp.

**FEATURES/ADVANTAGES**

- » Highest quality raw materials: Saint-Gobain uses Beta® fiberglass yarns and Teflon® Fluorocarbon resins
- » Meets or exceeds fire codes for permanent buildings: All of Saint-Gobain’s membrane products have been rated as noncombustible
- » 30 years of experience: Saint-Gobain has been weaving and coating permanent architectural membranes for over 30 years, and was a part of the team that originated the concept of permanent architectural membranes
- » Long lasting life: 20+ years before replacement

**TECHNICAL INFORMATION**

The manufacturing of Fabrorb materials is carried out under the control of Saint-Gobain Performance Plastics. Incoming Beta yarn is tested for conformity and brought into our weaving plant. All steps in the weaving process are monitored for quality and uniformity.

The coating process assures total encapsulation of the fiberglass yarns and the formation of a weather tight barrier of Teflon resin. The result is a uniformity of the physical characteristics on a roll-to-roll basis.

**COMPANY PROFILE**

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**CONTACT INFORMATION**

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www.sheerfill.com

**Seaman Corp.**



**PRODUCT » Fabric for custom tensioned/ frame structures**

Shelter-Rite® Fabrics are coated fabrics designed for custom and frame structures that call for excellent product consistency and durability. Seaman Corp. offers these membranes with a selection of top finishes allowing the designer to customize the installation.

Shelter-Rite Architectural Fabrics with fluoropolymer top finishes offer the longest life and highest performance. Seaman Corp. manufactures these membranes, which set the industry standard for low maintenance and longevity.

PVDF top finish allows customization on color choices and is a weldable product. Shelter-Rite Fabric with PVDF top finish can be found in many long-term applications.

Acrylic top finishes have been used in tension structures for many years. This product also allows customization of colors and offers excellent performance in a variety of climatic conditions.

**TECHNICAL INFORMATION**

- » *Tensile Strength:* Shelter-Rite Architectural fabrics are available in tensile strengths ranging from 200 to 650 lbs/in., covering all requirements of U.S. and European standards
- » *Tear Strength:* Weft inserted knit polyester fabrics typically have higher tear strength than conventionally woven polyester materials of comparable weight and strength. Tongue tear strengths available from 100 to 300 lbs
- » *UV/Weathering Resistance:* Formulated for long-term exposure. Cleanability and aesthetic properties depend on the top coat selected
- » *Flame Resistance:* All fabrics meet NFPA 701 and various other FR code requirements. The material is self-extinguishing and will not flame spread
- » *Seam Strength:* No reduction in loading design is necessary to compensate for strength reduction at seams.

**COMPANY PROFILE**

For more than half a century, Seaman Corp. has been the leading innovator and manufacturer of high performance coated synthetic fabrics for industrial and commercial applications. Shelter-Rite polyester architectural fabrics, with Acrylic, PVDF and Fluoropolymer Film top finishes, have been used successfully for tensioned custom and frame structures for over 20 years worldwide.

Seaman Corp. controls the entire manufacturing process from fibers to base fabric, to the coating and the top coat for sealing the architectural fabric. The company has extensive R&D capabilities and operates with cutting edge technology allowing more options for the designer.

**CONTACT INFORMATION**

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www.architecturalfabrics.com  
www.seamancorp.com

**Seaman Corp.**



**PRODUCT » Fabric for air supported structures**

Shelter-Rite® Fabrics are coated fabrics designed for air supported structures that call for excellent product consistency and durability. Seaman Corp. offers these membranes with a selection of top finishes allowing the designer/owner to customize the installation.

Shelter-Rite Architectural Fabrics with fluoropolymer top finishes offer the longest life and highest performance. Seaman Corp. manufactures these membranes, which set the industry standard for low maintenance and longevity.

PVDF top finish allows customization on color choices and is a weldable product. Shelter-Rite Fabric with PVDF top finish can be found in many long-term applications.

Acrylic top finishes have been used in air supported structures for many years. This product also allows customization of colors and offers excellent performance in a variety of climatic conditions.

**TECHNICAL INFORMATION**

- » *Tensile Strength:* Shelter-Rite Architectural fabrics are available in tensile strengths ranging from 200 to 650 lbs/in, covering all requirements of U.S. and European standards
- » *Tear Strength:* Weft inserted knit polyester fabrics typically have higher tear strength than conventionally woven polyester materials of comparable weight and strength. Available with tongue tear strengths that range from 100 to 300 lbs
- » *UV/Weathering Resistance:* Formulated for long-term exposure. Cleanability and aesthetic properties depend on the top coat selected by the designer
- » *Flame Resistance:* All fabrics meet NFPA 701 and various other FR codes. The material is self-extinguishing and will not flame spread
- » *Seam Strength:* No reduction in loading design is necessary to compensate for strength reduction at seams.

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For more than half a century, Seaman Corp. has been the leading innovator and manufacturer of high performance coated synthetic fabrics for industrial and commercial applications. Shelter-Rite polyester architectural fabrics, with Acrylic, PVDF and Fluoropolymer Film top finishes, have been used successfully for tensioned custom and frame structures for over 20 years worldwide. Seaman Corp.'s coating processes produce membranes that are extremely reliable and durable.

Seaman Corp. controls the entire manufacturing process from fibers to base fabric, to the coating and the top coat for sealing the architectural fabric. The company has extensive R&D capabilities and operates with cutting edge technology allowing more options for the designer.

**CONTACT INFORMATION**

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www.seamancorp.com

**SEFAR® Architecture TENARA®**



**PRODUCT » Translucent/flexible fabric for structures**

SEFAR Architecture TENARA fabric offers the highest level of light transmission of any exterior structural fabric, while offering exceptional pliability and durability. TENARA fabric is 100% fluoropolymer providing excellent light transmission and material durability. Our patented, double-coated technology produces a fabric with high strength that is completely waterproof and a superior choice for fabric roofing applications. Coupled with a 15-year warranty and a life expectancy of 25+ years, TENARA fabric is ideal for both fixed and dynamic fabric structures such as Wimbledon Centre Court and the new retracting fabric roof at BC Place, Vancouver.

**SUSTAINABLE ADVANTAGES/FEATURES**

- » Up to 40% light translucency – twice typical industry level
- » 15-year written replacement warranty; expected lifespan 25+ years
- » Resists UV, chemical and other pollutants
- » Installs white in appearance, remains white
- » Naturally stain resistant, easy to clean
- » Class-A fire rated per ASTM E84, NFPA 701 Pass, EN 13501 B-s1, D0
- » Withstands aggressive folding and flexing
- » Ideal for retractable fabric & roofing structures

**TECHNICAL INFORMATION**

Scrim: 100% fluoropolymer fabric woven with high strength ePTFE fiber  
 Coating: 100% fluoropolymer  
 Material width: 1.575m (62")  
 Fabrication: HF Welded, conventional welding or sewn  
 Seam strength: Room temperature, seam strength 90% of fabric strength  
 Flammability: Inherently inflammable; does not support flame or flame spread

**COMPANY PROFILE**

For more than 180 years, SEFAR has built a reputation as a world leader in the design and manufacturing of high quality woven fabric membranes with facilities on 6 continents. SEFAR's weaving and coating technologies have been refined over many years to suit production of fluoropolymer materials that are extremely challenging to weave and coat but add enhanced light transmission and pliability benefits when used in roofing membranes. Design professionals, engineers, interior designers and innovative fabricators specify SEFAR fabric in applications that demand durable membranes with high light transmission. SEFAR's architectural fabrics are found in many of the world's most innovative fabric membrane projects.

**CONTACT INFORMATION**

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**Tri Vantage LLC**



**PRODUCT » Fabrics for shade sails**

Tri Vantage offers two lines of extra heavy-duty shade cloth from PolyFab USA. Polytex® and Comtex® are ideally suited for commercial and residential shade sail applications. Both fabrics are flame retardant and block more than 95% of harmful UV rays.

Available in 16 (Polytex) and 15 (Comtex) designer colors, both fabrics come with a 10-year warranty for loss of strength due to UV exposure. Polytex and Comtex HDPE shade fabrics are 100% recyclable through the Polyfab USA Recycling Program and all styles meet FR requirements of NFPA 701-2004, ASTM E-84 Class A, and California State Fire Marshal, Section 13115.

**TECHNICAL INFORMATION**

Fabric: High-density polyethylene (HDPE)  
 Weight: Polytex – 7 oz./sq. yd.; Comtex – 10 oz./sq. yd.  
 Colors: Cappucino, Café Noir, Red, Aquamarine, Black, Bronze, Claret, Midnight Green, Navy Blue, Porcelain, Rust, Sage, Sandstone, Silver, Slate Gray, Yellow  
 Rolls: Available in 12.5 ft. wide by 100 ft. long of center-folded rolls.

**COMPANY PROFILE**

Tri Vantage LLC, a Glen Raven Company, is an international supplier of specialty fabrics and hardware used in the manufacture of awnings, signs, casual furniture, tents, umbrellas, marine products (interiors, tops and covers) and many other residential, commercial and architectural applications. The company serves awning and marine fabricators, architects, interior designers, sign manufacturers and upholstery shops through 19 distribution centers throughout North America.

**CONTACT INFORMATION**

Tri Vantage LLC  
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 Glen Raven, NC 27217-1100 USA  
 800 786 1876, +1 216 696 2820  
 www.trivantage.com

*Polytex® and Comtex® are registered trademarks of Polyfab USA LLC; Tri Vantage is a registered trademark of Glen Raven, Inc.*

### Tri Vantage LLC



**PRODUCT » Shade fabric**

Tri Vantage® offers the Shade Inspiration Collection, a complete line of decorative and transition shade products featuring a select group of fabric options, including Sunbrella® Shade Fabric.

Decorative colors and unique textures allow your clients to express their personal style with sophisticated, classic beauty. Sunbrella decorative shade fabrics come in 32 variations. The range includes various colors and 1%, 3%, 5% and 10% openness factors. All fabrics are made with 100% Sunbrella yarns making them ideal both for interior and exterior shades in residential applications.

Sunbrella Shade fabrics are just one of the many fabric options available when selecting a complete decorative shade product from Tri Vantage’s shade inspiration collection.

**TECHNICAL INFORMATION**

Sunbrella Shade Fabric: 100% Sunbrella yarns  
 Weight: Ranges from 4.8 oz./sq. yd. to 8.0 oz./sq. yd.  
 Colors: Sunbrella Shade 1.0: Charcoal, Desert, Ecu, Eggshell, Khaki, Mystic, Parchment, Pebble; Sunbrella Shade 3.0: Alabaster, Bluespruce, Chiffon, Cognac, Denim, Ebony, Eggshell, Pebble; Sunbrella Shade 5.0: Almond, Canyon, Ivory, Niagara, Oyster, Parchment, Sand, Tarragon; Sunbrella Shade 10.0: Birch, Cashew, Julep, Mesa, Muslin, Papyrus, Russet, Sand

**COMPANY PROFILE**

Tri Vantage LLC, a Glen Raven Company, is an international supplier of specialty fabrics and hardware used in the manufacture of awnings, signs, casual furniture, tents, umbrellas, marine products (interiors, tops and covers) and many other residential, commercial and architectural applications. The company serves awning and marine fabricators, architects, interior designers, sign manufacturers and upholstery shops through 19 distribution centers throughout North America.

**CONTACT INFORMATION**

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 1831 N Park Ave  
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 www.trivantage.com

*Tri Vantage® and Sunbrella® are registered trademarks of Glen Raven, Inc.*

### Verseidag Seemee US Inc.



**PRODUCT » Fabric for fabric structures**

Duraskin® structural materials are designed for construction engineering and combine numerous advantages, such as:

- » High tensile strength
- » Low mass per unit area
- » Adequate flexibility
- » Excellent weather resistance

Duraskin materials can be used especially for mechanically, pneumatically supported roof and hall construction. Depending on application and requirements, Verseidag offers several types of Duraskin based on fabric woven in polyamide, polyester and glass fiber coated with PVC or PTFE. Both coatings are available in a variety of colors, including Pantone®. Duraskin has three types of topcoat for any condition. Acrylic lacquer sealant on both sides of the material that enhances use, reduces soiling, and preserves fabric life. In addition, we offer both PVDF coating in weldable and non-weldable for added protection, ease of use, maximum dirt resistance and excellent cleaning characteristics, all qualities that prolong the life of your project.

**TECHNICAL INFORMATION**

Duraskin coated tent and structure material excels with a brighter white, superior color consistency, more standard widths [61, 98, 118 and 122 in.], weights that range from 16 oz. to 23 oz. /sq. yd. in tent material, up to 43 oz. /sq. yd. in structural materials. All materials have a high gloss surface and excellent welding behavior. Because of these traits, Duraskin is the leader in coated tent material and structural membrane throughout the world. The base fabric, polyester mesh, is woven in house for the finest product and quality control from start to finish.

**COMPANY PROFILE**

Green since 1920, Verseidag-Indutex (Verseidag Seemee US) has been an innovative leader in the technical textile industry, changing with the times to meet the needs of markets worldwide. Taking pride in conducting business under both ISO 9001 and ISO 14001, using the latest technology and sacrificing nothing, we aim to fulfill your needs and exceed your requirements with our innovative products.

**CONTACT INFORMATION**

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## FABRIC APPLICATIONS

### Birdair Inc.



#### PRODUCT » Tension fabric structures

Tensioned membrane architecture is used to create innovative roof, skylight and canopy structures for nearly every building type across most market segments. Birdair's work ranges from security-conscious transportation terminals to sports venues and convention centers; from festive entertainment, performing arts facilities and museums to offices, hotels, resorts and visitor centers; from eye-catching retail complexes to walkways and porte cocheres.

#### FEATURES/ADVANTAGES

- » *Aesthetic possibilities:* Imaginative and dramatic architecture can be achieved through countless forms, compared to conventional building systems and materials
- » *Translucency:* Architectural membranes transmit diffused, color-correct natural light that results in bright, glare-free interiors. At night, back-lit membranes create an enticing glow
- » *Durability:* They have been used in every climate—from windy, cold and snowy regions to dry, scorching deserts
- » *Extensive life cycle:* Roof systems of PTFE fiberglass have been in place for more than 33 years, proving their durability and longevity
- » *Low maintenance:* Architectural membranes help reduce the routine maintenance facility managers associate with traditional building components. The Teflon® coating of PTFE fiberglass membranes is impervious to pollutants, discoloration and staining, while the natural cleansing action of rain keeps its surface pristine and white.

#### TECHNICAL INFORMATION

Materials range from PVC vinyl fabric to PTFE-coated fiberglass membrane. Selecting a specific material depends on the proposed structure's building and fire code requirements as well as function, life cycle and budgetary expectations. The support framework for the fabric is typically steel, but aluminum, glu-lam wood and reinforced concrete are also possible.

#### COMPANY PROFILE

Birdair is a design/build specialty contractor that collaborates closely with architects and their clients to deliver award-winning solutions. Utilizing the Taiyo Kogyo Group's global network of resources, Birdair provides its customers with the highest level of design, fabrication and construction services.

For all your project needs—from shade and weather-protection products to clear span buildings and complex integrated applications—make Birdair your expert resource.

#### CONTACT INFORMATION

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800 622 2246, +1 716 633 9500  
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sales@birdair.com  
www.birdair.com

### Birdair Inc.



#### PRODUCT » Pre-engineered modular structures and architectural umbrellas

Practical, versatile, stylish and economical. Birdair's standard products—Modular Systems and Architectural Umbrellas—offer a wide range of Modulares and Umbrellas to suit individual needs.

**Modular Systems** are an attractive alternative to custom designed structures. **Architectural Umbrellas** are closeable units specifically designed to combine shading comfort with refined appeal. Umbrella units arrive on site pre-assembled and ready for quick installation to most surfaces, including concrete footings and slabs, timber decks and boardwalks, permanently fixed or mounted for removal and storage.

These standard products are used widely in such market sectors as hospitality, sport/leisure, amusement, and institutional. They provide shade and weather protection for a wide variety of venues.

#### FEATURES/ADVANTAGES

- » *Styles:* Modular Systems are available in 5 models and 38 sizes, 100 sq. ft. to 1600 sq. ft. Architectural Umbrellas are available in 11 models and 27 sizes, from 47 sq. ft. to 325 sq. ft. Both types are available with centered, cantilevered, or corner support columns.
- » *Colors:* While white fabric with white steel is standard, all models are also available with color options for both fabric and steel.
- » *Linkable:* Both can be grouped in various configurations to suit specific functional needs.

#### TECHNICAL INFORMATION

Standard fabric on both types is PVC vinyl. Optional materials include PVC mesh, PTFE fiberglass, and expanded PTFE. Both types feature premium-grade painted, powder-coated, or galvanized structural steel with stainless steel hardware. Models are wind-rated to meet general code requirements.

#### COMPANY PROFILE

Birdair is a design/build specialty contractor that collaborates closely with architects and their clients to deliver award-winning solutions. Utilizing the Taiyo Kogyo Group's global network of resources, Birdair provides its customers with the highest level of design, fabrication, and construction services. A steadfast commitment to quality, progressive technology, imaginative design, and customer service is the trademark of all Birdair products.

For all your project needs, from shade and weather-protection products to clearspan buildings and complex integrated applications, make Birdair your expert resource.

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**Eide Industries Inc.**



**PRODUCT » Friendly Baptist Church entrance canopy**

In September 2010, Eide Industries Inc. completed the fabrication and installation of an inviting entrance canopy for the Friendly Baptist Church in Tyler, Texas. This project is a great example of how, in the early phases of design development, Eide can take a simple concept from an architect and produce 3-D visual models and budgetary estimates. We worked closely with the architect to help refine the tensile structure design to fit the budget allowance.

Ferrari Précontraint 502 fabric is used to cover the 32 ft. wide by 17 ft. projection tensile entrance canopy. The steel frame consists of 8-5/8 in. diam. upright columns and 4-1/2 in. diam. upper frames, with engineered footings of 2 ft.-6 in. diam. by 6 ft. deep. To be economical, the powder coat painted frames was designed to be assembled in the field without the need for field welding and field painting.

**TECHNICAL INFORMATION**

- » Dimensions: 32 ft. by 17 ft.
- » Coverage Area: Approximately 550 sq. ft.
- » Fabric: Ferrari Précontraint 502 fabric
- » Framing: 8-5/8 in. diam. upright columns and 4-1/2 in. upper frames
- » Footings: 2 ft.-16 in. diam. by 6 ft. deep
- » Primary CSI Numbers: 133123 Tensioned Fabric Structures and 133133 Framed Fabric Structures

**COMPANY PROFILE**

Eide Industries Inc. is a recognized leader of custom manufactured commercial canopies, awnings, tensioned fabric structures, architecturally designed shade structures, industrial protective covers, structural steel framing, fixed sun screens, walkway coverings and special structures. We specialize in complex and difficult designed projects regardless of job size, scope of work or administrative demands.

**CONTACT INFORMATION**

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info@eideindustries.com  
www.tensionstructures.com

**Eide Industries Inc.**



**PRODUCT » Stanford Vision Center canopy system**

In July 2010, Eide Industries Inc. completed the construction of this innovative entrance canopy system for the Stanford Vision Center in Palo Alto, Calif. This 15-ft. wide by 28-ft. long fabric structure is a modified long dome canopy designed to hang from supported I-Beams. Attention to small design details, such as specifying Sheerfill V PTFE fabric to cover the powder coat painted frame, underside mounting to the existing building and recessed fastening bolts transforms an ordinary structure to a work of art.

DPR Constructions Inc. selected Eide to assist with the design refinement and to provide high level fabricating and installation expertise to the project. Working closely with the general contractor and complying with the architect's requirements and recommendations, Eide successfully completed this bold and functional canopy system on time to meet and exceed the client's expectations.

**TECHNICAL INFORMATION**

- » Modified Hanging Long Dome Canopy.
- » Combined coverage area is 420 sq. ft.
- » Sheerfill V PTFE fabric membrane covers
- » Approx. Dimensions: 15-ft. wide by 28-ft. long by 16-ft. high
- » Primary CSI Numbers: 133133 Framed Fabric Structures and 107316 Canopies

**COMPANY PROFILE**

Eide Industries Inc. is a recognized leader of custom manufactured commercial canopies, awnings, tensioned fabric structures, architecturally designed shade structures, industrial protective covers, structural steel framing, fixed sun screens, walkway coverings and special structures. We specialize in complex and difficult designed projects regardless of job size, scope of work or administrative demands.

**CONTACT INFORMATION**

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## FABRIC APPLICATIONS

### FabriTec Structures



#### PRODUCT » Tensile structure fabrication and design/build consultation

Utilize FabriTec Structures in the conceptual stage of your project and establish the foundation for both technical and economic feasibility. All of our structures are designed using 3D computer technology providing us the precision required to tackle the most ambitious projects. FabriTec can provide the expertise, coordination and attention to detail that will result in a successful project being completed on time and on budget.

#### FEATURES/ADVANTAGES

- » 3D Concept Development
- » Renderings/Animations
- » Preliminary Engineering Analysis
- » Costing/Feasibility Studies
- » Preliminary Bid Set Documents
- » Form Finding/Final Engineering
- » Construction Documents
- » Fabrication Drawings/Patterning
- » Installation/Construction Management

#### TECHNICAL INFORMATION

Modern fabrics combined with high-performance supports—such as cables, masts, trusses and frames—provide design freedom and diversity. FabriTec Structures offers a variety of materials with varying degrees of translucency, light reflectivity, UV protection and non-combustibility:

- » PVC/PVDF (vinyl-coated polyester)
- » PTFE (teflon-coated fiberglass)
- » ETFE (transparent structural clear foil)
- » HDPE (high-density polyethylene mesh)

#### COMPANY PROFILE

FabriTec Structures has grown to be recognized as the leading tensile fabric structure design/build firm in North America. Our tensile fabric structures utilize the most advanced architectural materials available and are non-combustible, both thermal and UV-resistant, and can offer full weather protection. With virtually unlimited design options and applications, FabriTec's products are both practical and often visually spectacular.

Architects, builders and other designers can choose fabrics from a wide range of color and translucency and create a structure that perfectly compliments an existing design theme or creates a unique focal point for any outdoor or indoor area.

#### CONTACT INFORMATION

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www.fabritecstructures.com

### Sun Ports



#### PRODUCT » Fabric structures for shade

Providing shade has become an increasingly vital issue throughout the United States due to indeterminate weather conditions and increasing awareness of skin cancer caused by sunlight. Sun Ports' cost-effective and aesthetically appealing fabric shade structures are used to shade parks and playgrounds, schools and daycare centers, auto dealerships, pools and waterparks, sports and athletic facilities, stadiums and amphitheaters, hotels and resorts, retail and community centers and much more. Sun Ports, with Shadesure® fabric requires less steel for the same stability and strength as canvas structures.

#### FEATURES/ADVANTAGES

- » *Versatile:* Architecturally compatible with different roof styles, colors, heights, and shapes; Structures available for virtually any outdoor area — indoor structures also available for added aesthetic appeal.
- » *Safe:* Shields up to 98% of the sun's harmful UV rays; Porous fabric allows for cool air circulation reducing temperatures underneath by as much as 30%; Reduces the risk of sunburn, sun stroke, heat exhaustion and skin cancer
- » *Long-lasting:* 10 – 12 year life expectancy on fabric; 10 year limited manufacturers warranty from the date of installation on fabric; Structural integrity of steel is warranted for 10 years
- » *Practical:* Lowest cost/sq. ft. for protection against skin cancer; Structurally sound, fully engineered, modular systems; Inexpensive fabric replacement

#### TECHNICAL INFORMATION

Our fabrics can block out as much as 98% of the sun's harmful UV rays, are mildew and rot resistant and available in a wide range of colors. We can meet or exceed existing building and fire codes and our structures can be engineered to sustain winds up to 150mph.

#### COMPANY PROFILE

Sun Ports has been the market leader in the development of fabric shade systems since our foundation in Dallas, Texas in 1991. We have installed over 200,000 structures nationwide in an unparalleled diversity of market segments — everything from amphitheaters to zoos.

Sun Ports offers a complete design/build organization with in-house experts in design, engineering, fabrication, project management, manufacturing and construction.

#### CONTACT INFORMATION

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**DUVALL Dynamic Spaces**



**PRODUCT » Tensioned Fabric Sculptures**

DUVALL specializes in the design, engineering, fabrication, and installation of lightweight sculptural fabric and stainless steel sculptures. DUVALL works very closely with architects, interior designers, as well as exhibit designers and builders. Most of our structures are custom, site-specific applications. We collaborate with designers to translate concepts to reality. DUVALL installs sculptures into retail, entertainment, medical and commercial office interiors. Our work ranges from small scale freeform sculptures to larger scale highly engineered structures. Our focus is on producing the highest quality response and product, and we provide project management and coordination on all aspects throughout the process, from concept development to installation. We provide complete installation services which is often the most critical aspect of the success of the project. We address coordination for sprinkler systems, HVAC, electrical, and engineered suspension and earthquake support.

DUVALL engineers, patterns and fabricates complex architectural laser cut stainless steel structures formed in a variety of ways from stainless sheet materials.

**TECHNICAL INFORMATION**

DUVALL utilizes a wide variety of fabrics appropriate to each custom application including polyethylene, polyester, vinyl and Teflon. DUVALL works primarily with lightweight 6061 tubular aluminum frame. We have designed and developed our own system of connectors and details to simplify the set-up. DUVALL integrates frame and fabric in unique ways to maximize curvature of fabric and reduce segmentation. Frames are bent to create fluid dynamic shapes with intelligently engineered internal support structure. DUVALL fabrics are Class A and meet NFPA-701 and B1 requirements.

**COMPANY PROFILE**

DUVALL is a creative business focused on sculptural and artistic projects which require special expertise in engineering and design development. DUVALL provides concepts, prototyping as well as fabrication for various scopes including large scale commercial applications. DUVALL has a 7500 sq.-ft. solar heated studio with premium design and fabrication capabilities. DUVALL understands the importance of working with the designer as well as the contractor in coordinating and maintaining the intention of the concept throughout the process.

**CONTACT INFORMATION**

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**G.H. BRUCE, LLC TENSILE SHADE PRODUCTS, LLC JUXTAFORM, LLC**



**PRODUCT » Custom Tensile Sculptures**

G.H. Bruce designs, manufactures and installs tensile sculpture, a specialized art form that couples expertise in formal design with a keen understanding of materials and manufacturing methods. We work with architects, landscape architects and project owners to produce unique installations. G.H. Bruce extends habitable space beyond hard walls, promoting an outdoor lifestyle engaged with the natural world and shielded from the harmful effects of direct sunlight. We are committed to the creation of sculptures with aesthetic presence and practical merits that significantly enhance the quality of our clients' lifestyle.

**CONTACT INFORMATION**

G.H. BRUCE, LLC  
+1 520 903 9005  
www.ghbruce.com

**PRODUCT » Pre-engineered Tensile Sculptures**

Tensile Shade Products manufactures and markets pre-engineered tensile sculpture, unsurpassed in quality and beauty. Each of our products configures easily in multiples and is ideal for public, commercial and residential settings. Architects and landscape designers are afforded a wide range of structures, sizes and colors. Cities, towns, resorts, hotels, cultural institutions, commercial developers and schools have invested in the value of our designs.

**CONTACT INFORMATION**

TENSILE SHADE PRODUCTS, LLC  
+1 520 903 0414  
www.tensileshadeproducts.com

**PRODUCT » Interior Tensile Sculptures**

Juxtaform brings tensile sculpture indoors with its colorful line of stretched fabric panels. Playful and adaptable, our fire retardant forms may be used to create a dramatic visual statement, reconfigure a space or frame a view. With a large palette of shapes and sizes, architects and designers have a ready solution to a variety of environmental challenges. See our website for useful design ideas, layout tips and product information.

**CONTACT INFORMATION**

JUXTAFORM, LLC  
888 589 8236  
www.juxtaform.com

## Svalson AB



### PRODUCT » Height adjustable windscreen

Shelter your guests from all the hassles of outdoor dining. Cold winds, harsh weather and theft are just some of the negative elements that distract restaurant guests from dining or having coffee in an open air environment. Café au Lä® windscreen provides protection against all these elements, making outdoor dining more comfortable.

Café au Lä is the easily adjustable windscreen for restaurant terraces. Guests can decide the height they want of the windscreen, whether they want to have an intimate atmosphere or want to be part of what is going on outside. Café au Lä is also available electrically operated.

Lä = Swedish word pronounced as lay; (skydd mot vinden) shelter; (sitta i ~...) on the lee side, the leeward; (i-för vinden) sheltered from...; (i-om) to the leeward of.

### TECHNICAL INFORMATION

Made from aluminum, the standard design is equipped with laminated safety glass, both in the lower fixed part and in the height-adjustable part. The height adjustable glass is balanced with counterweights which makes it very simple for the user to adjust the height themselves.

Standard heights (lowered/raised position): 800/1300mm, 900/1500mm, 1000/1700mm, 1100/1900mm, (max. width 2200mm) and 1200/2100mm (max. width 2000mm).

U.S. market, available heights are: 36/60 in., 42/72 in. (max. width 86 in.), 46/80 in. (max. width 80 in.)

### COMPANY PROFILE

Svalson AB, with 40 employees, manufactures ergonomic, electrically operated, sliding windows for receptions, restaurants, post offices, banks and for premises where security demands are extremely high. Our latest product is this height adjustable windscreen for restaurant terraces.

The company is located in the north of Sweden and celebrates its 30th year in 2011. Svalson supplies its products to Sweden and other Nordic countries, Europe, Australia, Japan and the United States.

### CONTACT INFORMATION

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