

Outdoor Fabric

Selecting the Appropriate Outdoor Fabric

	Breath ability	Waterproof	Abrasion Resistance	UV Resistance	Colorfastness	Clean ability
Sunbrella Furniture Fabric	5	1	4	3	5	5
Sunbrella Marine Grade	4	3	2	5	5	5
Sunbrella Plus	3	4	3	5	5	4
Sunbrella Supreme	2	4	3	5	5	4
SeaMark	1	5	4	5	5	4
Surlast	4	3	5	3	5	4
Top Gun	2	4	5	3	2	3
Odyssey III	3	3	4	3	2	3
Stamoid Vinyl	1	5	4	4	4	3/5
Shelter-Rite Vinyl	1	5	5	3	4	5
Cotton Duck (marine-treated, preshrunk)	5	4	4	1	N/A	4

*Fabric rated from 1-5: 1 = Poor, 5 = Excellent

BREATHE ABILITY

The level of breathability is determined by how easily air can pass through the fabric. Fabrics that naturally breathe well are assigned a rating of 3 or better. The breathability of a fabric should always be considered before selecting a fabric for a specific application. If an air tight enclosure is made of fabric that does not breathe well (waterproof fabric), condensation and mildew will become a problem. Waterproof fabric is an excellent choice for bimini, awning, and dodger tops, but enclosed covers may require ventilation with screens or vents.

WATERPROOF

Fabrics that do not breathe well are more water resistant, and those that do not breathe at all are waterproof. Extremely water resistant or waterproof fabrics are assigned a rating of 4 or 5. In general, completely waterproof fabrics are vinyl-coated or laminated. Many consider them less aesthetically pleasing than woven fabrics as they do not drape well.

ABRASION RESISTANCE

Fabrics that hold up well to abrasion are generally preferred for marine and outdoor cover applications. A rating of 3 or greater is considered very good. Abrasion resistant fabrics are usually heavy, stiff, and often coated with vinyl or other resins which make their surfaces somewhat harsh. A few exceptions, like Cotton Duck and Sunbrella Furniture Fabric, are able to maintain a level of suppleness to their surface. Although Sunbrella Marine Grade was given a rating of 2, it is still the most popular and widely used outdoor canvas in the United States. Abrasion resistance can be built into a cover made with Sunbrella by adding extra layers or reinforcement patches to areas prone to abrasion.

UV RESISTANCE

UV resistance is perhaps the most important consideration when evaluating an outdoor fabric. A rating of 3 or better is excellent. Highly UV resistant fabrics will last longer when exposed to sunlight consistently. Also, a manufacturer's warranty is always a great way to judge UV resistance. Longer warranties almost always correlate to life expectancy when exposed to sun, rain, snow, wind, etc. As an estimate you can assume that the chart's ratings also indicate useful life in years of harsh sun exposure.

COLORFASTNESS

A fabric's colorfastness is determined by how well it holds its color over years of sun exposure, rain, and snow. Colorfast fabrics stay bright and do not fade or bleed. Ratings of 4 or better are excellent.

CLEAN ABILITY

Cleanability is very important, especially for outdoor fabrics. If dirt gets trapped in the weave of a woven fabric and is not washed out, mold and mildew can grow. Fabrics that do not release dirt well because of single side coatings (e.g., Odyssey III, Stamoid Light) need frequent inspection and cleaning. Ratings of 3 are good.

SUNBRELLA FURNITURE FABRIC

Sunbrella Furniture Fabric (by Glen Raven) is a soft upholstery fabric for use in boats or homes. Features great durability, colorfastness, and cleanability. Great for outdoor patio furniture and cushions. 5 year warranty.*

BREATHE ABILITY (5): This softer denier solution dyed acrylic breathes extremely well. Lighter than traditional marine grade or awning materials. Ideal for outdoor patio cushions and indoor upholstery.

WATERPROOF (1): Trades the fluorocarbon treatment that makes a fabric water resistant for a softer finish. Not suitable for marine covers or enclosures, but an excellent choice for salon or patio cushions when using self-draining foam (Dry Fast) or foam that is protected with a plastic bag.

ABRASION RESISTANCE (4): Soft finish helps to make it more abrasion resistant.

UV RESISTANCE (3): Any solution dyed acrylic will be very UV resistant. Slightly less resistant than other Sunbrella outdoor fabric due to smaller denier (yarn size) and lighter construction.

COLORFASTNESS (5): Solution dyed means that the yarn color runs throughout the cross-section of the fiber and equates to excellent colorfastness.

CLEAN ABILITY (5): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn.

SUNBRELLA MARINE GRADE

The popularity of Sunbrella acrylic (by Glen Raven) stems from bright colors, water resistance, high UV resistance, breathe ability, and longevity. Fabric has minimal shrink or stretch and features a relatively soft hand. Colors are extremely consistent and can be mixed and matched between Sunbrella Marine Grade, Plus, Supreme or even SeaMark. Use for dodgers, biminis, full canvas enclosures, boat covers, mainsail covers, foredeck bags, awnings, tote bags, sun bands on sails, cushions, window coverings, equipment covers, and bags. 9.25 ounces per square yard. 10 year warranty.*

BREATHE ABILITY (4): Sunbrella synthetic outdoor fabrics are popular in part by how well the fabric breathes. Great for mainsail covers, foredeck bags, and full canvas enclosures and covers.

WATERPROOF (3): Highly water resistant! Breathe ability is not a characteristic of waterproof fabric, but the tight weave and fluorocarbon treatment process allow for water resistance. Over time, the water resistance will decrease but can easily be revitalized with a new application of fluorocarbon (303 Fabric Guard #481).

ABRASION RESISTANCE(2): Although given a rating of 2, Sunbrella Marine Grade fabric is still the most popular and widely used outdoor canvas in the United States. Abrasion resistance can be built into a cover made with Sunbrella by adding extra layers or reinforcement patches in areas prone to abrasion.

UV RESISTANCE (5): There is no better material for outdoor use than Sunbrella! Excellent longevity and colorfastness even when exposed to harsh sunlight. The only way to get more life from a fabric is to make it heavier or to ply on a protective coating (SeaMark or Sunbrella Supreme).

COLORFASTNESS (5): Solution dyed means that the yarn color runs throughout the cross-section of the fiber and equates to excellent

colorfastness.

CLEAN ABILITY (5): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn.

SUNBRELLA PLUS

Sunbrella Plus sports the same base fabric as Sunbrella Marine and Awning but has a urethane coating for even greater water and abrasion resistance. Use coated side down, away from the elements, and use caution when patterning as there is an inside and outside of the fabric. Works great for tops where extra water resistance is ideal. Colors are extremely consistent and can be mixed and matched between Sunbrella Marine Grade, Plus, Supreme or even SeaMark. Use for dodgers, biminis, tops, full canvas enclosures, boat covers, awnings, equipment covers, and bags. 10 oz. per square yard. 5 year warranty.*

BREATHE ABILITY (3): The urethane coating decreases breathe ability; however, the end result is a well balanced fabric. Fabric breathes enough yet is water tight for full enclosure applications.

WATERPROOF (4): Sunbrella Plus is perhaps the best choice when looking for a material that is highly water resistant yet breathes. The urethane coating adds an additional barrier to leakage and lasts longer than aftermarket waterproofing sprays.

ABRASION RESISTANCE (3): The urethane coating also helps increase resistance to abrasion (to coated side only). Fortunately the coated side is usually the side that rubs against the boat's frame, track, rails, etc.

UV RESISTANCE (5): There is no better material for outdoor use than Sunbrella! Excellent longevity and colorfastness even when exposed to harsh sunlight. The only way to get more life from a fabric is to make it heavier or to ply on another layer of fabric (SeaMark or Sunbrella Supreme).

COLORFASTNESS (5): Solution dyed means that the yarn color runs throughout the cross-section of the fiber and equates to excellent colorfastness.

CLEAN ABILITY (4): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn. The urethane coating on one side does make dislodging dirt slightly more difficult than cleaning standard Sunbrella Marine Grade.

SUNBRELLA SUPREME

Sunbrella Supreme is a unique fabric. A urethane adhesive is used to adhere acrylic "flocking" to the back of regular Sunbrella. Flocking is made up of very short precision cut fibers that are adhered to the surface on end. These fibers improve numerous characteristics of the fabric and at the same time still permit the passage of air that reduces the tendency for condensation under covers. The flocking can be given a lighter color to brighten cover interiors. Colors are extremely consistent and can be mixed and matched between Sunbrella Marine Grade, Plus, Supreme or even SeaMark. Use for dodgers, biminis, tops, boat covers, awnings, tote bags, window coverings, equipment covers, and bags. 13 oz. per square yard. 5 year warranty.*

BREATHE ABILITY (2): The flocking does permit the passage of air to reduce the tendency for condensation under covers, however it is more limited than standard Sunbrella.

WATERPROOF (4): The acrylic flocking increases water resistance and is considered "essentially waterproof". Use a #16 needle or smaller

when sewing this fabric to minimize potential seam leakage.

ABRASION RESISTANCE (3): The soft surface is very kind to varnish and plastic parts, and the flocking improves abrasion resistance.

UV RESISTANCE (5): There is no better material for outdoor use than Sunbrella! Excellent longevity and colorfastness even when exposed to harsh sunlight.

COLORFASTNESS (5): Solution dyed means that the yarn color runs throughout the cross-section of the fiber and equates to excellent colorfastness.

CLEAN ABILITY (4): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn and flocking. The urethane binder between sides does make dislodging dirt slightly more difficult than cleaning standard Sunbrella Marine Grade.

SEAMARK

SeaMark is a combination of Sunbrella, the premier woven acrylic fabric, and Haartz, textured marine-grade vinyl resulting in a colorfast, waterproof fabric that holds up well in the harsh conditions of any marine environment. Colors are extremely consistent and can be mixed and matched with Sunbrella Marine Grade, Plus, Supreme. Use for dodgers, biminis, tops, boat covers, awnings, equipment covers, and bags. 16 oz. per square yard. 5 year warranty.

BREATHE ABILITY (1): The vinyl coating eliminates the fabric's ability to breathe. Provide appropriate ventilation if using this material for anything other than an open sided top.

WATERPROOF (5): SeaMark is completely waterproof! Use a #16 needle or smaller when sewing this fabric to minimize potential seam leakage.

ABRASION RESISTANCE (4): The vinyl back surface is very abrasion resistant. Fortunately the coated side is usually the side that rubs against the boat's framing, track, rails, etc.

UV RESISTANCE (5): There is no better material for outdoor use than SeaMark (Sunbrella is the outer surface). Excellent longevity and colorfastness even when exposed to harsh sunlight.

COLORFASTNESS (5): Because Sunbrella is the outer fabric, the yarn color runs throughout the cross-section of the fiber and equates to excellent colorfastness.

CLEAN ABILITY (4): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn. The vinyl coating on one side does make dislodging dirt slightly more difficult than cleaning standard Sunbrella Marine Grade. Vinyl side cleans easily with a sponge.

SURLAST

SurLast is a 100% solution-dyed all weather polyester designed specifically for the special stress that boat covers endure. A urethane coating is added to one side adding stability, increased water and mildew resistance, and minimal shrinking or stretch. Colors will not fade or wash out. Use for trailering boat covers, PWC covers, equipment covers, and bags. 7 oz. per square yard. 3 year manufacturer's warranty.

BREATHE ABILITY (4): Breathable, yet water resistant. SurLast is lighter than Sunbrella, but the urethane coating adds increased water resistance.

WATERPROOF (3): The urethane coating adds water resistance, but

the fabric can still breathe and therefore is not waterproof.

ABRASION RESISTANCE (5): Polyester fabric is inherently more abrasion resistant than acrylic fabrics like Sunbrella making SurLast ideal for trailer boat covers where the fabric moves and flaps a lot. Soft, tightly woven construction is very kind to gelcoat and painted surfaces.

UV RESISTANCE (3): Polyester is a UV resistant material but less so than acrylic fabrics like Sunbrella or vinyl coated polyester fabrics like Stamoid.

COLORFASTNESS (5): Solution dyed means that the yarn color runs throughout the cross-section of the fiber and equates to excellent colorfastness.

CLEAN ABILITY (4): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn. The urethane coating on one side does make dislodging dirt slightly more difficult than cleaning non-coated woven fabrics.

TOP GUN

Top Gun is a durable, high count woven polyester coated on both sides with a specially formulated polymeric coating that will not harden, crack, or peel after outdoor exposure or in extreme temperatures. The coating adds UV, mildew, and water resistance but can breathe so it will not trap excess moisture. Use for dodgers, biminis, tops, full canvas enclosures, boat covers, anchor riding sails, awnings, junk rig sails, equipment covers and bags. 11 oz. per square yard. 5 year manufacturer's warranty.

BREATHE ABILITY (2): Slightly less breathable than routinely suggested for full enclosures without providing other means for ventilation.

WATERPROOF (4): The tight weave and polymeric coating together make this fabric almost waterproof.

ABRASION RESISTANCE (5): The polymeric coating will not harden, crack, or peel after outdoor exposure or when subjected to temperatures below 0 degrees F. An excellent choice for all types of protective covers and especially for those that are subjected to a good deal of abrasion.

UV RESISTANCE (3): Polyester is a UV resistant material but less so than acrylic fabrics like Sunbrella and vinyl coated polyester fabrics like Stamoid.

COLORFASTNESS (2): The color will not stay true as long as materials that are solution-dyed (like Sunbrella and Sur Last). Colors are also not as vibrant or consistent as Sunbrella or SurLast outdoor fabrics.

CLEAN ABILITY (3): Easy to clean, but the polymeric (acrylic) coating on both sides make dislodging dirt slightly more difficult than cleaning non-coated woven fabrics. Pre-soak Top Gun with a mixture of water, chlorine bleach, and non-detergent soap, brush, and thoroughly rinse for the best results.

ODYSSEY III

Odyssey III is a lighter weight (polyester) version of Top Gun. Similar characteristics including high strength, dimensional stability, and abrasion, mildew, and UV resistance. Use for lightweight protective covers for boats, dinghies, and grills, or for bags and totes. 6.5 oz. per square yard. 3 year warranty.

BREATHE ABILITY (3): Slightly more breathable than Top Gun, but a little less water resistant.

WATERPROOF (3): An additional clear acrylic backcoat is applied to further enhance its water repellent properties. Odyssey III is just slightly more water resistant than standard Sunbrella Marine Grade.

ABRASION RESISTANCE (4): The polymeric coating makes Odyssey III extremely resistant to abrasion.

UV RESISTANCE (3): Polyester is a very UV resistant material but less so than 100% acrylic fabrics like Sunbrella and vinyl coated polyester fabrics like Stamoid.

COLORFASTNESS (2): Surface dyeing color does not stay true as long as solution-dyed fabrics like Sunbrella and SurLast. Colors are also not as vibrant or consistent as Sunbrella and SurLast outdoor fabrics.

CLEAN ABILITY (3): Easy to clean, and although a soft tight weave, dirt easily washes free from the crevasses of the yarn. The acrylic coating on one side does make dislodging dirt slightly more difficult than cleaning non-coated woven fabrics.

STAMOID VINYL

Stamoid is a vinyl coated woven polyester that can be used anywhere from console covers, spray hoods, convertible tops, mooring covers, dodgers, biminis, awnings, and protective covers. Completely waterproof, easily cleanable, cool to sit under, and folds and stores well. The high tenacity weave holds its shape and does not show humidity sagging problems common to lower marine grade fabrics. Available in 8.3 oz. and 12.7 oz. Sailrite recommends the 8.3 oz. for awnings but the 12.7 oz. for just about everything else. 5 year warranty.

BREATHE ABILITY (1): Because the material is vinyl coated, it is waterproof and will not breathe. Appropriate ventilation must be provided if using this fabric for full enclosures.

WATERPROOF (5): Completely waterproof! Use a #16 needle or smaller when sewing Stamoid to minimize potential seam leakage.

ABRASION RESISTANCE (4): The 8.3 oz. lighter weight (4128 from Ferrari) is only vinyl-coated on one side while the 12.7 oz. weight (Top – 3933 or Tweed – 4612 from Ferrari) is coated on both sides. Abrasion resistance is greater for the double coated product.

UV RESISTANCE (4): The 8.3 oz. lighter weight (4128 from Ferrari) is only vinyl-coated on one side while the 12.7 oz. weight (Top – 3933 or Tweed – 4612 from Ferrari) is coated on both sides. UV resistance is greater for the double coated product as the vinyl coating is to face outward.

COLORFASTNESS (4): The PVC coating and dye are quite colorfast, yet they still do not match solution-dyed products like Sunbrella and Sur Last. Dye lots are very consistent.

CLEAN ABILITY (3/5): The vinyl sides are very easy to clean with a sponge and mild detergent. The 8.3 oz. lighter fabric version is harder to clean and remove dirt from crevasses given the texture of the non-coated polyester weave on one side.

SHELTER-RITE VINYL

Shelter-Rite is a very durable and heavy vinyl coated woven polyester often used for industrial cover and tarp applications. Use for fabric canopies on boat lifts, reinforcing material behind fasteners, and high wear areas on covers using other outdoor fabrics.

BREATHE ABILITY (1): Because the material is vinyl coated, it is waterproof and will not breathe. Appropriate ventilation must be provided if using this fabric for full enclosures.

WATERPROOF (5): The vinyl coating makes Shelter-Rite completely waterproof!

ABRASION RESISTANCE (5): When compared to other 18 oz materials, Shelter-Rite exhibits superior resistance to abrasion. It is often used as chafe protection on enclosures made from other lighter marine grade outdoor fabrics.

UV RESISTANCE (3): Heavy materials are often inherently more resistant to sun exposure than lighter alternatives. The thick vinyl coating on Shelter-Rite does a very good job of protecting the base polyester weave.

COLORFASTNESS (4): The vinyl coating and dye are quite colorfast, yet they still do not match the colorfastness of solution-dyed products like Sunbrella and Surlast. Dye lots are very consistent.

CLEAN ABILITY (5): Easy to clean with a sponge and mild detergent.

COTTON DUCK (MARINE-TREATED, PRESHRUNK)

Cotton duck, often called Otis Permasol, Vivatex or Sunforger, is an all cotton duck with special marine finish. Allow about an extra 3% for shrinkage under normal usage. Soft hand ideal for outdoor covers where low cost is important. Use for winter boat covers, boat deck canvassing, awnings, drop cloths, bags and hats. Available in many weights and thread deniers.

BREATHE ABILITY (5): Although a tight weave, cotton duck allows for excellent passage of moisture through the material.

WATERPROOF (4): When cotton duck gets saturated, the fibers will swell and the openings in the weave close making the fabric nearly waterproof. Cotton duck will shrink some over time even if it undergoes a "preshrinking" process.

ABRASION RESISTANCE (4): Heavier versions are quite abrasion resistant as the fabric is soft and forms well to harsh surfaces and corners.

UV RESISTANCE (1): The main disadvantage of cotton duck is that it fails quickly when exposed to harsh sun. Some improvement has been made by applying chemical treatments to the fabric but it is still inferior to almost all of the synthetic alternatives.

COLORFASTNESS (N/A): Cotton fabrics take and hold dye very well. For most all outdoor applications this fabric is sold in a natural or pearl grey color. Low pricing is generally the appeal and bright colors are not readily available.

CLEAN ABILITY (4): Easy to clean and wash dirt free from the crevasses of the yarns.

*For more information on Glen Raven's Sunbrella fabric warranty, see the related resource "Sunbrella Warranty" or go to http://www.sunbrella.com/pdf/w_sunbrella_fabric.pdf.

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