

TEXTILENE  
**SUNSURE®**  
BRAND FABRIC

SLINGS.  
UMBRELLAS.  
SHADE SAILS.

TEXTILENE® SUNSURE® is a specially formulated high strength fabric built to withstand fading, mildew, soiling and wear and tear. SUNSURE® has up to a 92% shade factor making it the right choice for several outdoor applications. It is specially designed to remain vibrant and colorful for years even through continuous outdoor exposure and under the most severe weather conditions.

Specifications

**REACH Compliant** - Regulated by Registration, Evaluation, Authorization and Restriction of Chemicals. REACH places greater responsibility on industry to manage the risks that chemicals may pose to human health and the environment.

**Fire Classification** - Passes California U.S. Title 19 (small scale), NFPA701-2015 TM#1 (small scale), NFPA 101 (Class A Rating), UBC (Class 1), BS 5867 2008 Part 2 Type B Performance, NFPA 701 TM #2 (large scale), and CAN/ULC-S 109-03 (large and small scale).

**Bacteria and Fungal Resistance** - Passes ASTM E 2180, ASTM G21. Includes specially formulated antimicrobial.

**RoHS Compliant** - Free of Lead (Pb), Cadmium (Cd), Mercury (Hg), Hexavalent chromium (Hex-Cr), Polybrominated biphenyls (PBB), and Polybrominated diphenyl ethers (PBDE).

**Children’s Toy Act** - Does not contain harmful phthalates listed under Section 108 of the Consumer Product Safety Improvement Act of 2008 (CPSIA).

**Environmental Certification** - GREENGUARD gold certified. Acceptable for use in environments such as schools and healthcare facilities. Complies with requirements of the State of California’s Department of Public Health "Standard Method for Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1 (2010)" (also known as California Section 01350).

**Warranty** - Twitchell Technical Products, LLC produces durable, all weather fabrics that are unmatched for quality and durability. Sunsurre® brand fabrics are covered by a 15-year limited warranty for fixed & operable shading applications and 3-year limited warranty for all other end uses from the original date of purchase.

Technical Data

**Item Number: T91NCS, T91NCT, T91HCT, T91N5W, T91NCX**

**Product Description:** A fabric using .018" diameter vinyl coated 500 denier polyester core yarns in the warp and .025" diameter vinyl-coated 1000 denier polyester core yarn in the fill.

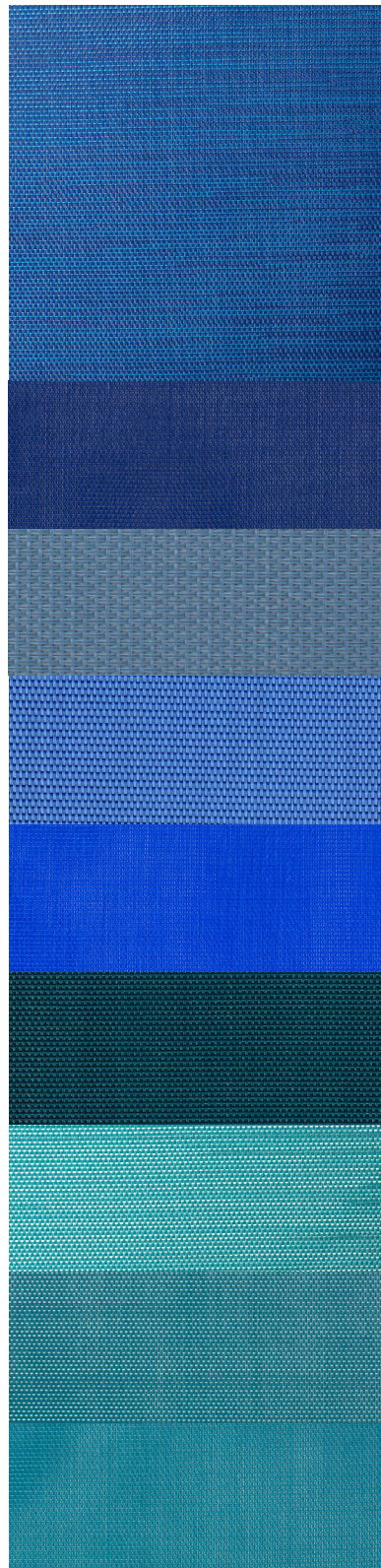
| Attribute                                                      | ASTM     | Warp                     | Fill          | Typical |
|----------------------------------------------------------------|----------|--------------------------|---------------|---------|
| Construction, end/inch                                         | D3775    | 38.0 ±0.5                | 12.0 ±0.5     |         |
| Weight, oz/yd²                                                 | D3776-09 | -                        | -             | 15.0    |
| Weight, g/m²                                                   | D3776-09 | -                        | -             | 508.65  |
| Tensile Strength (grab), lbf / kgf                             | D5034-09 | 559.1 / 253.6            | 354.8 / 160.9 |         |
| Tensile Strength (strip), lbf / kgf                            | D5035-11 | 283.0 / 128.4            | 165.4 / 75.0  |         |
| Tear Strength (trapezoidal), lbf / kgf                         | D5733    | 101.8 / 46.2             | 65.6 / 29.8   |         |
| Elongation, %                                                  | D5035-95 | 27.3                     | 25.4          |         |
| Abrasion Resistance<br>(CS10/500 cycles/ with no added weight) | D3884-09 | No Exposure of Core Yarn |               |         |
| Flammability Rating                                            |          | CS191-53 & CA117E        |               |         |
| Weatherability, 1200 hours                                     | G154     | Trace Discoloration      |               |         |
| Mildew Resistance                                              | G21-13   | No Growth                |               |         |

The above results are a representation of real data from single test samples. Presently no specification is

| SUNSURE® Shade Factor |               |             |            |              |
|-----------------------|---------------|-------------|------------|--------------|
| Profile Angle         | Transmittance | Reflectance | Absorption | Shade Factor |
| 0                     | 0.12          | 0.51        | 0.37       | 91           |
| 30                    | 0.12          | 0.53        | 0.35       | -            |
| 45                    | 0.11          | 0.54        | 0.35       | -            |
| 75                    | 0.08          | 0.63        | 0.29       | -            |

Color is the key factor when selecting a TEXTILENE® SUNSURE® fabric for awning or shade applications. Light colors are more reflective with a lower heat gain, and are more difficult to see through. Darker colors provide better daytime visibility. These colors absorb light and heat while transmitting less light and having lower surface brilliance. Twitchell’s specially designed TEXTILENE® SUNSURE® fabric can create an ideal balance between unique high quality looks and the proper amount of





Azure  
T91HCT038 x  
54"

Sea Isle Blue  
T91NCT003 x  
54"

Suncast  
T91NCS003 x  
54"

Periwinkle  
T91NCT051 x  
54"

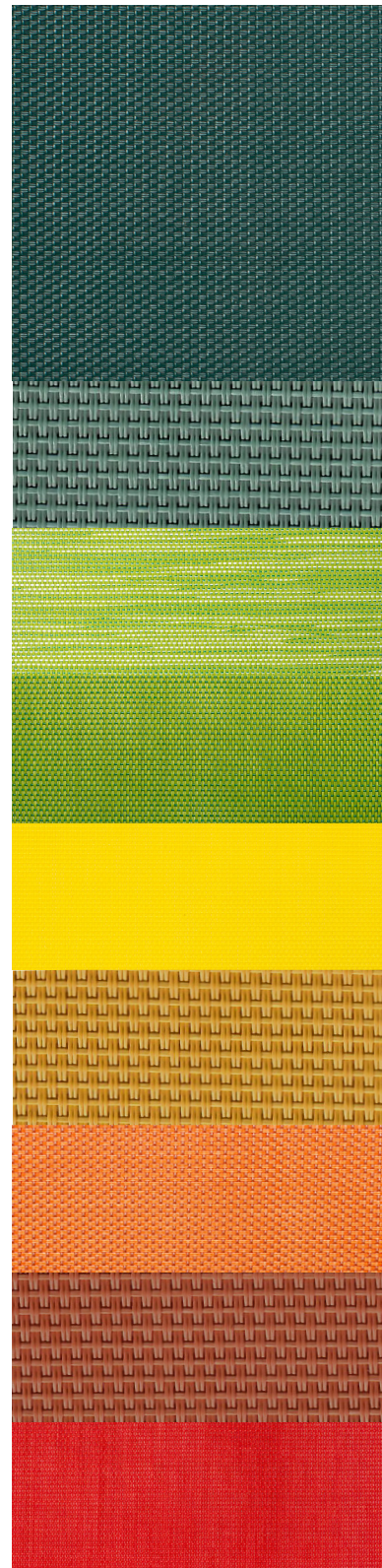
Royal Blue  
T91NCS004 x  
54"

Deep Twilight  
T91NCS307 x  
54"

Teal Crush  
T91HCT037 x  
54"

Jade  
T91NCT020 x  
54"

Mayan Teal  
T91NCS025 x  
54"



Forest Green  
T91NCS012 x  
54"

Sage Blue  
T91NCS308 x  
54"

Greenlake  
T91HCT036 x  
54"

Limelight  
T91NCT045 x  
54"

Yellow  
T91NCS172 x  
54"

Curry  
T91NCS306 x  
54"

Orange Envy  
T91NCT044 x  
54"

Spice  
T91NCT050 x  
54"

Red  
T91NCS059 x  
54"



Birch Forest  
T91HCT008 x  
54"

Winter Wheat  
T91NCT027 x  
54"

Natural Linen  
T91HCT001 x  
54"

Honey  
T91HCT024 x  
54"

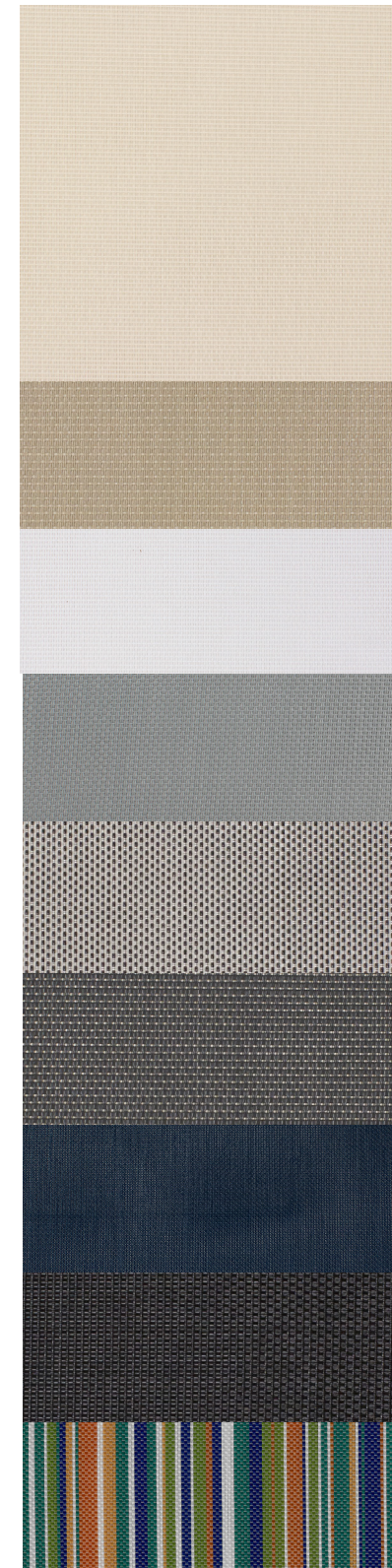
Autumn Fern  
T91HCT010 x  
54"

Seascape  
T91HCT045 x  
54"

Meridian  
T91HCT023 x  
54"

Sierra Sands  
T91HCT009 x  
54"

Voyage  
T91NCX092 x  
54"



Alabaster  
T91NCS013 x  
54"

Taupe  
T91NCS065 x  
54"

White  
T91NCS011 x  
54"

Dove Grey  
T91NCS008 x  
54"

Dense Titanium  
T91N5W100 x  
54"

Ninja  
T91NCT023 x  
54"

Dark Blue  
T91NCS002 x  
54"

Black  
T91NCS029 x  
54"

Carnival  
T91NCX093 x  
54"

54" = 137.16 cm

Due to the technical limitations of digital cameras and inconsistencies of display monitors, the characteristics and colors of the fabrics seen on your screen may be slightly different than the actual product.

\*Custom colors and widths available.  
Minimum order of 1000 yards. Upcharges may apply.\*\* Available in 60 linear yard rolls.