

YUMA TESLA

More Lighter, More Stronger and All-weather Sunshading fabric

TSL-Atlas



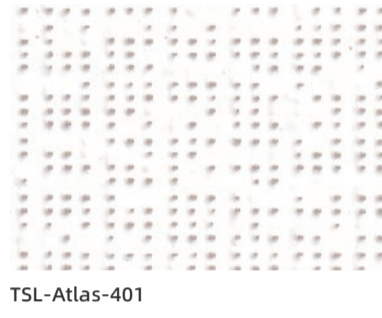
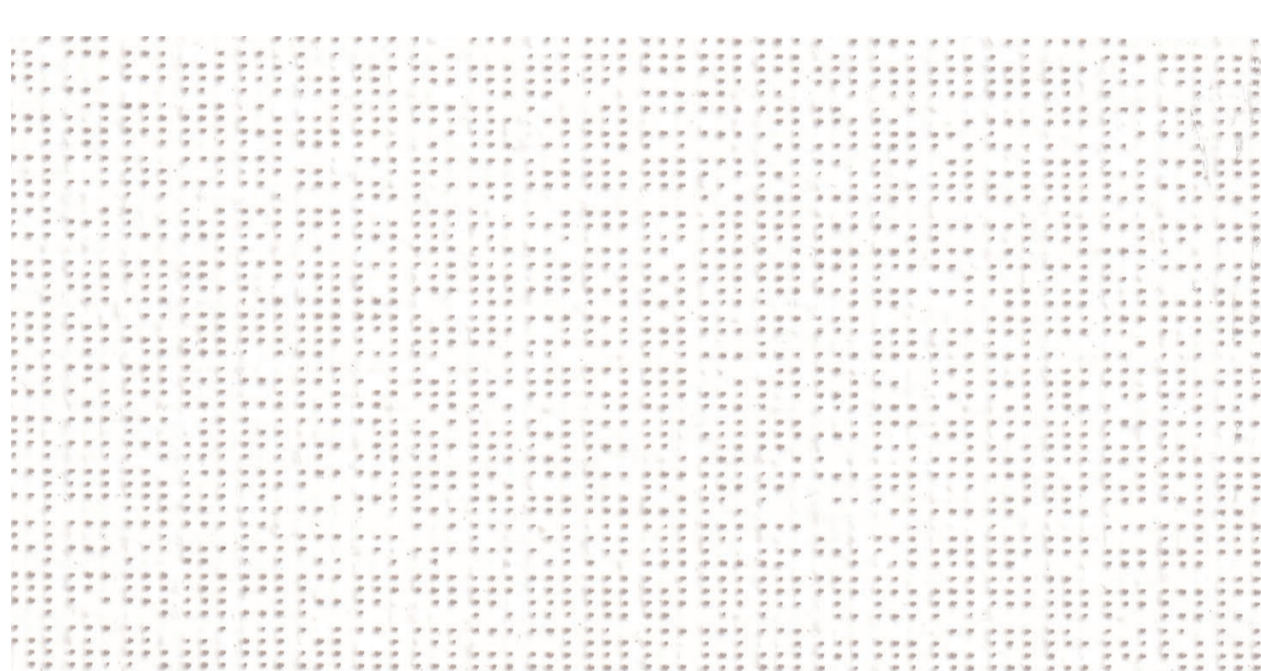
Translucent and High Light Transmission

With superior fabric processing technology, visible light can pass through normally, giving the fabric a translucent and high light transmission effect.

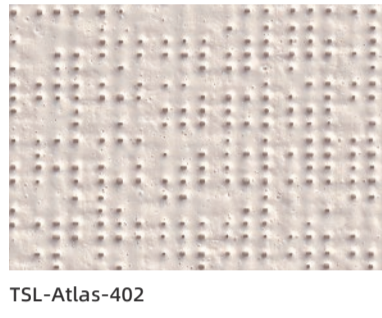


100% Waterproof and Rainproof

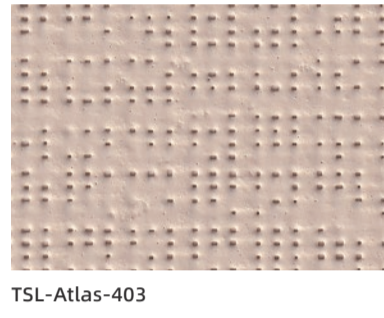
The innovative technology and fabric processing enable 100% waterproof and rainproof functionality while maintaining light transmission.



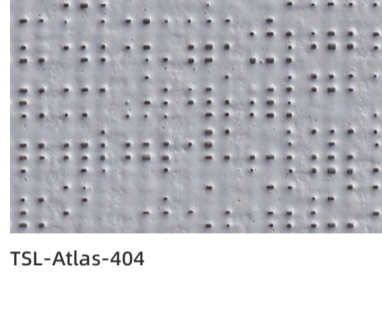
TSL-Atlas-401



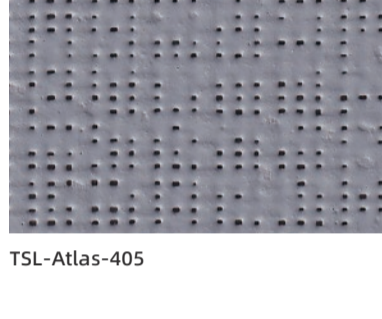
TSL-Atlas-402



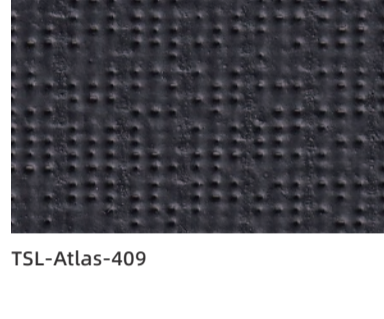
TSL-Atlas-403



TSL-Atlas-404



TSL-Atlas-405



TSL-Atlas-409

More Lighter

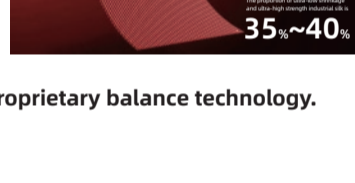
The fabric is woven from high-strength polyester fiber and then coated with a complete high-performance composite material. The overall surface of the fabric is completely protected at one time, and the surface is smooth and flat. Compared with the sunscreen fabric on the market, with the same tensile strength, the weight is reduced by 30%.



More Stronger

① Compared with the existing sunscreen fabrics in the market, the tensile force is increased by 102%.

The proportion of ultra-low shrinkage and ultra-high strength industrial silk is 35% - 40%, and the tensile strength is increased by 102% compared with the same weight of sunscreen fabric.



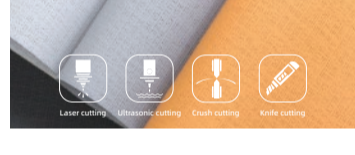
② Super dimensional stability: unique **Strain Balance** constant tension + prestress proprietary balance technology.

③ Five prevention function.

Water resistance: The high-performance composite material coating is applied on the high-strength polyester fiber as a whole, which is waterproof and will not absorb water, and there is no possibility of mildew and bacteria breeding.
Fire resistance: German standard B1, GB/T17591, American standard NFPA701, European standard EN 13773, EN13501, Canadian fire protection and other certificates are complete, meeting fire safety requirements. High colour fastness: Pass the ISO 105-B04 artificial weather color fastness test to ensure that the fabric will not fade for 8-10 years.
Mildew proof: European standard all-weather color fastness, no fading. The full range of products passed ASTM G21, grade 0 mildew resistance 28 days no growth test.
Free of formaldehyde: Listed companies purchase PVC, additives and other raw materials that are healthy and environmentally friendly, and do not contain formaldehyde.

④ Super strong edge sealing ability.

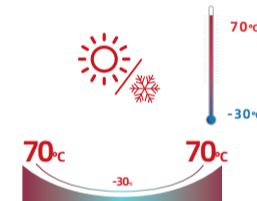
⑤ Environmental friendly.



All-Weather

① Aging resistance + extreme temperature resistance.

Thanks to the excellent surface coating process, the fabric is more suitable for extreme outdoor environments.

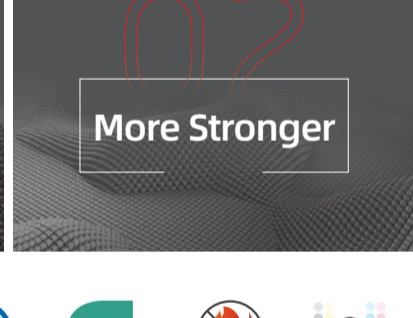
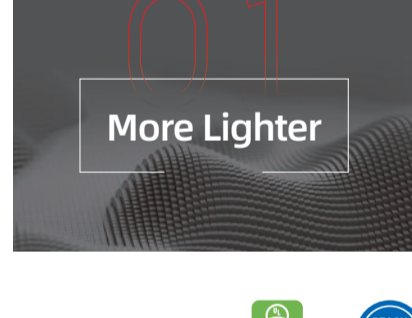


② Corrosion resistance.

The excellent surface treatment process of Yuma TSL fabric has strong corrosion resistance, can resist acid and alkali erosion, and is not affected by air pollution, acid rain and ozone.

③ Anti fouling + self cleaning.

The fabric is coated with a complete high-performance composite material (anti dust, anti ultraviolet, anti-aging, anti-static, etc.) on the woven material. The overall surface is protected, smooth and flat, not easily affected by external factors, and has a strong anti pollution effect. The imported surface treatment agent effectively prevents the precipitation of plasticizer, the fabric surface is flat and smooth, and the self-cleaning is 30% higher than the ordinary outdoor fabric on the market.



Technical properties

Product	TSL-Atlas	-
Width	200 (customized) /250/300cm	DIN EN ISO 2286-1
Thickness	0.54mm	DIN EN ISO 2286-3
Total Weight	610g/m2	DIN EN ISO 2286-2
Roll length	30m/roll	-

Physical properties

Tensile strength	Warp 3200N/5CM Weft 1900N/5CM	EN ISO 1421
Tear strength	Warp 500N/5CM Weft 220N/5CM	DIN 53363
Adhesion	-	EN ISO 2411
Crack resistance	-	DIN 53359-A
Elongation	1.5% / 1.5%	EN 15977 (24h-100N/5cm)
Residual elongation	0.5% / 0.5%	EN 15977 (24h-100N/5cm)
Anti-wicking	-	FZ/T64014-2009
Extreme working temperatures	-	DIN EN 1876-1

Flame retardancy

Flame retardancy	B1	DIN 4102
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Surface treatment

Surface treatment	PVDF / Acrylic	-
Self-cleaning performance	-	GB/T 9780-2013

Solar optical values

Color fastness	7	ISO 105-B04
UV Aging Test	-	ISO 4892-3 grey scale assess

Eco friendly

Environmental Friendly	Pass	REACH
Anti-mildew Test	Pass	ASTM G21-15
Heavy Metal Test (Cd/Pb/Hg)	Pass	GB/T 26125
Odor Test	Pass	GB 18401
PH Value Test	Pass	GB 18401
Formaldehyde content test	Pass	GB 18401

Certifications, labels, guarantees

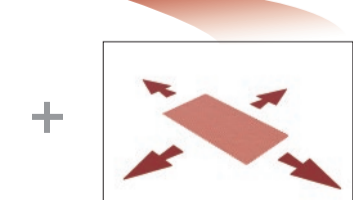
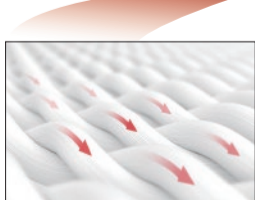
China Environmental Labelling	Pass	-
BSCI	Pass	-
ISO 9001	Pass	DIN EN
ISO 14001	Pass	DIN EN
ISO 45001	Pass	DIN EN

The technical data above are averaged values with a +/-5% tolerance. Values quoted in this document are commonly used test results for design purposes. They are given for information only in order to offer our customers optimum usage of our products. Our products are subject to improvements resulting from technical developments and we reserve the right to modify their characteristics at any time. The purchaser of our products is responsible for checking the above data. The colours and textures presented are included for information only.

Strain Balance

Constant tension

Measured by two tension detectors - the actual tension is compared with the artificially required tension, the tension controller will set the corresponding reduction or increase of the output proportion of the tension, so that the actual tension and the required tension maintain a dynamic balance to achieve constant tension. To achieve the fabric in a flat state when it is sold from the factory.



Prestress

In the process of coating, two-way tension is always applied to the warp and weftward of the material, so the fabric does not have any deformation, droop, fold, depression even under the force, and has the characteristics of maintaining permanent stability of the size, especially suitable for the use of large size. Even in the later period under the condition of violent heat, the fiber always maintains a tensioned state and does not deform.

Super dimensional stability: unique **Strain Balance** constant tension + prestress proprietary balance technology.

Standards: GB/T 2680-2021	Solar Optical Values			
	RS	TS	AS	TV
COLOR CODING	Solar Reflexion	Solar Transmittance	Solar Absorption	Visible Light Transmittance
TSL-Atlas-401	76.02	18.16	5.82	15.97
TSL-Atlas-402	56.59	12.00	31.42	7.68
TSL-Atlas-403	49.60	10.57	39.83	6.71
TSL-Atlas-404	38.34	5.24	56.42	3.34
TSL-Atlas-405	25.18	4.04	70.78	3.24
TSL-Atlas-409	6.23	2.26	91.52	2.10

Ts: Solar energy transmission

The proportion of solar energy transmitted through the fabric. A low percentage means that the fabric performs well in reducing solar energy.

Rs: Solar Reflectivity

The proportion of solar radiation reflected by the fabric. A high percentage means that the fabric performs well in reflecting solar energy.

As: Solar Absorbance

The rate at which the fabric absorbs the sun. Solar radiation is always partially passed through, absorbed or reflected by the fabric, and the sum of the three equals 100.

Ts + Rs + As = 100% Solar radiation energy.

