



sunproof®

technical textile for outdoor



2018 - 2020
LIVE LIFE
TO THE
FULLEST



INTRODUCTION

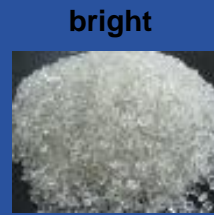
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1. Solution Dyed Polypropylene Fabric

Polypropylene is a by-product from petroleum refining process before polypropylene was invented, the gaseous waste from oil (propylene and ethylene) were simply burned because they were useless.

Today these gases are converted to polypropylene, this drastically reducing atmosphere pollution. Also because use by product from refining petroleum this reducing the need for virgin material.

Scheme of Polypropylene Yarn Spinning Machine

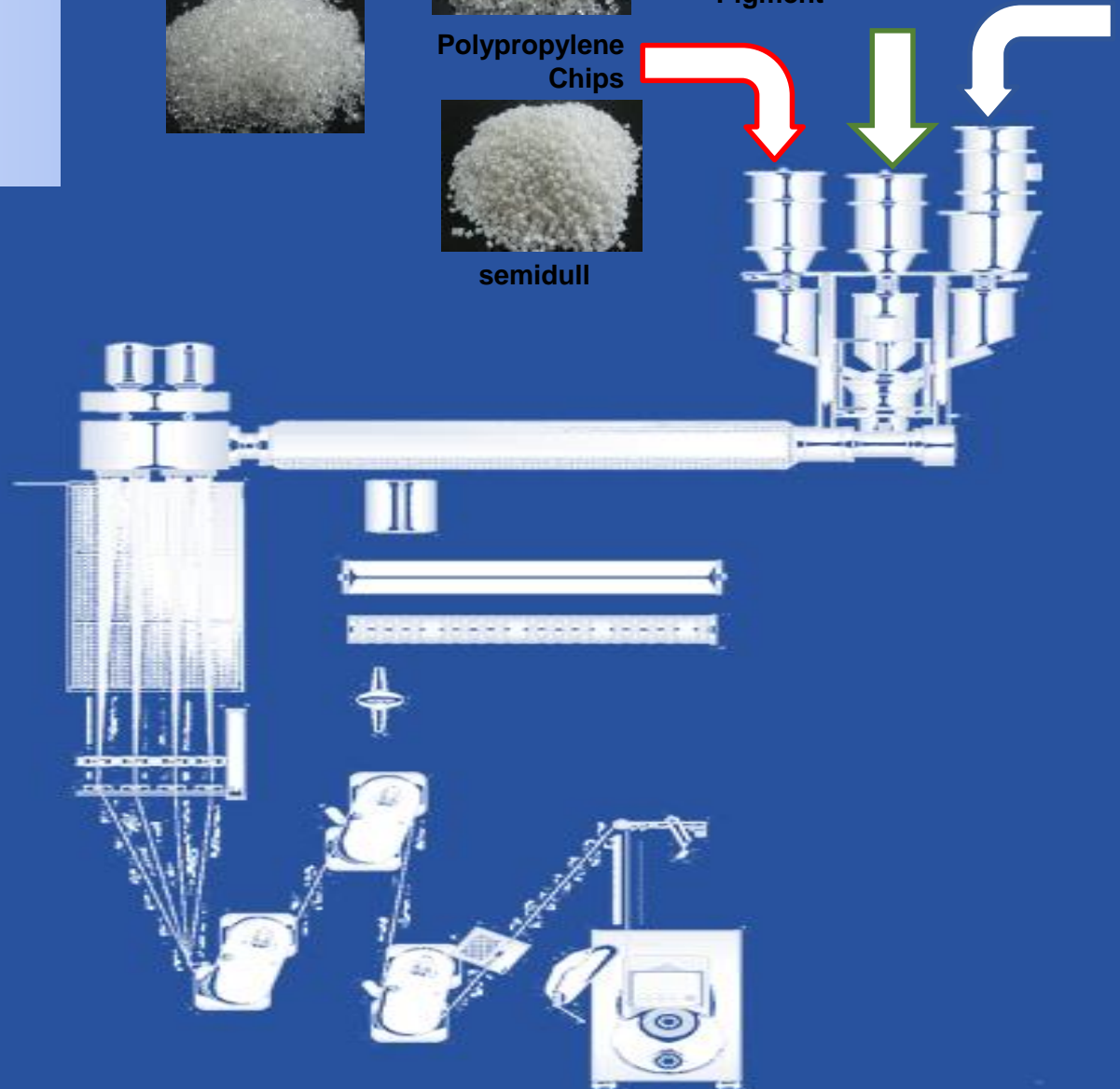


- Additive
- UV Stabilizer
 - WR
 - FR



semidull

Pigment



THE INSIDE STORY



STOCK-DYE
Color Only on Surface



SOLUTION-DYE
Color is Solid Throughout

2. Superior Of Polypropylene Fabric

- By product from refining process
- Require less energy to produce

Energy used in production of various fibers

in MJ per KG of fiber :

Polypropylene	115
Polyester	125
Acrylic	175

- Solution dyed is clean manufacturing
- Fully recyceable
- Inert material (Oekotex Standard 100 class I & ISO 14001)

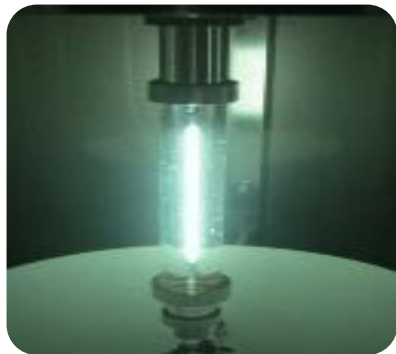
3. Outdoor Fabric

a. Color Fastness To Light

(ISO 105-B04: Colour Fastness to Artificial Weathering Arc Fading Lamp)



Colour fastness means the resistance of the colour of dyeings or prints on textiles to various types of influences to which they are subjected during production or in use



- B04 describes a test method for determining the resistance of the colour of textiles to artificial weathering conditions that can be achieved in an apparatus fitted with a xenon arc lamp
- Specimen of textile are exposed under specified conditions to light from xenon arc lamp and to water spray. At the same time one set of blue wol reference are exposed to light but are protected from water spray by a sheet of window glass.
- The colour fastness is assessed by comparing the change in colour of the test specimen with that of references used

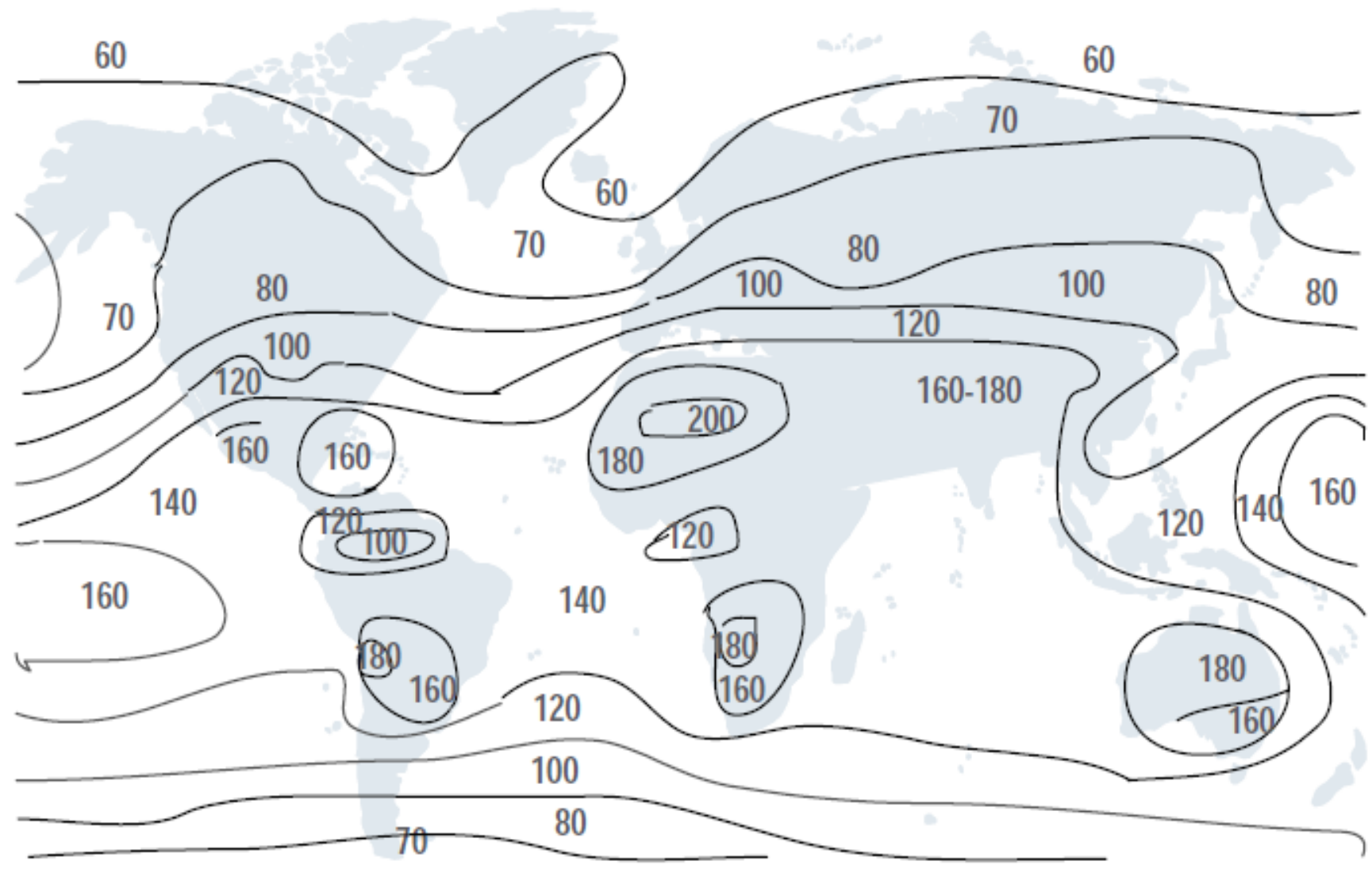
Light fastness Blue scale after ISO 105-B04



b. Weatherability

- Weathering is the adverse response of a material or product to climate, often causing unwanted and premature product failure
- The three main factor of weathering are **solar radiation (light energy), temperature and water (moisture)**
- Secondary effect as airborne pollutants, biological phenomena, and acid rain also influenced to weathering

Fastness to weathering Global radiation



ASTM G-53:1996

(UV Exposure degradation of Outdoor Fabric)

UK/ Northern Europe

- **1500 hours light / condensation = 1500 x 8 /12 hours exposure to light = 1000h light.**
- From our 'rule of thumb' calculation, 16.2 days (~400h) continuous exposure to UVA 340 @ 50°C = 1 year in the UK/ Northern Europe.
- Therefore: 1000h light = 1000/400 years = 2.5 years' exposure in the UK/Northern Europe.

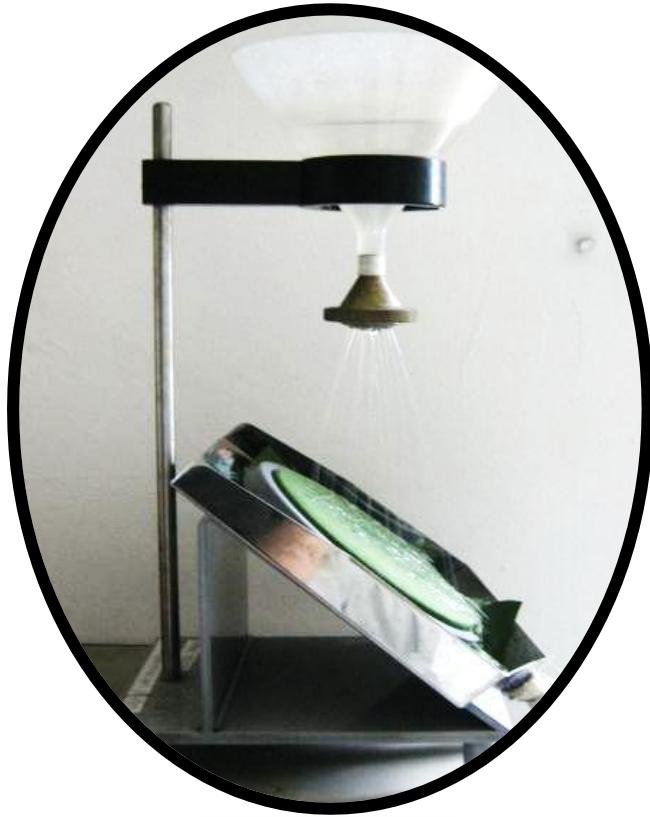
c. Water Repellency

What is difference water repellent and water proof ?

- **Water repellent (hydrophobic)** is water drops falling on to a water repellent textile fabric should run off the surface without wetting it.
- **Waterproof** is a term commonly applied to textile fabrics fully resistant to penetration by water (resistant to water pressure) and “completely impermeable” to air (i.e. the pores of the fabric are closed).



Water Repellency Test Method (AATCC 22-2005-Spray Test)



STANDARD SPRAY TEST RATINGS



100 (ISO 5)



90 (ISO 4)



80 (ISO 3)



70 (ISO 2)



50 (ISO 1)



0

100 - NO STICKING OR WETTING OF THE SPECIMEN FACE

90 - SLIGHT RANDOM STICKING OR WETTING OF THE SPECIMEN FACE

80 - WETTING OF SPECIMEN FACE AT SPRAY POINTS

70 - PARTIAL WETTING OF THE SPECIMEN FACE BEYOND THE SPRAY POINTS

50 - COMPLETE WETTING OF THE ENTIRE SPECIMEN FACE BEYOND THE SPRAY POINTS

0 - COMPLETE WETTING OF THE ENTIRE FACE OF THE SPECIMEN

COLORED WATER USED FOR PHOTOGRAPHIC EFFECT.

d. Soil & Stain Release



- The property of dirt, especially oil based, being more easily released from textiles during cleansing processes.
- Resistance to soiling as a finishing effect, which prevents soil penetration, or makes it difficult. Examples of soiling include dry soil (dust), wet soil (fruit juice, ink), oils and fats (engine oil and skin grease).

e. Oeko-Tex Standard 100

The Oeko-Tex Standard 100 is the world's leading eco label for textile. Products carrying this label have been tested and certificated by internationally renowned textile institutes. Textile products bearing this label will provide reassurance in your pursuit of a healthy lifestyle. The Guarantees that product passing these strict testing methods, are free of substances which might be harmful to humans or the environment.



Product Classes of Oeko-Tex standard 100 :

- Products for Babies (Class I)
- Products with direct contact Skin (Class II)
- Products without direct contact Skin (Class III)
- Decoration material (Class IV)



Oeko-Tex Standard 100 Certificate

SHIRLEY TECHNOLOGIES LIMITED
UNIT 11, WESTPOINT ENTERPRISE PARK
CLARENCE AVENUE
M17 1QS MANCHESTER, UNITED KINGDOM

OEKO-TEX®
CONFIDENCE IN TEXTILES

CERTIFICATE

The company

PT Ateja Tritunggal
JL Raya Batujajar
Km 2.8, Padalarang, Bandung
40561 Jawa Barat, INDONESIA

is granted authorisation according to STANDARD 100 by OEKO-TEX® to use the STANDARD 100 by OEKO-TEX® mark, based on our test report 46081



for the following articles:

Woven upholstery fabrics made of 100% Olefin (polypropylene) and acrylic – dope dyed and finished. May include water/oil repellent finish. May also include an anti-bacterial finish accepted by the OEKO-TEX® Association. Partially based on pre-certified materials according to Standard 100 by OEKO-TEX®.

The results of the inspection made according to STANDARD 100 by OEKO-TEX®, Appendix 4, **product class II** have shown that the above mentioned goods meet the human-ecological requirements of the STANDARD 100 by OEKO-TEX® presently established in Appendix 4 for products with direct contact to skin.

The certified articles fulfill requirements of Annex XVII of REACH (incl. the use of azo colourants, nickel release, etc.) as well as the American requirement regarding total content of lead in children's articles (CPSIA; with the exception of accessories made from glass).

The holder of the certificate, who has issued a conformity declaration according to ISO 17050-1, is under an obligation to use the STANDARD 100 by OEKO-TEX® mark only in conjunction with products that conform with the sample initially tested. The conformity is verified by audits.

The certificate 11-22833 is valid until 20.06.2018

Manchester, 11.08.2017


Mr Phil Whitaker
Technical Manager


Mrs Julia Dalton
Senior Technical Administrator

OEKO-TEX® Association | Genferstrasse 23 | P.O. Box 2006 | CH-8027 Zurich



f. UV Standard 801

- Sunlight is important for human health. At the same time, ultraviolet rays contained in sunlight pose a major stress and risk potential for the skin. UV Protection Factors (UPF) far above those of the strongest sunscreens (sunblocks) can be achieved.
- Ateja has obtained UV Standard 801 Certificate “Protect 80”, that is blocking more than 97 % UV rays.



UV Standard 801 Certificate

CERTIFICATE

HOHENSTEIN

INSTITUTE OF THE INTERNATIONAL
TESTING ASSOCIATION FOR
APPLIED UV PROTECTION

Hohenstein Laboratories GmbH & Co. KG
Certification Office - Schloss Hohenstein
74357 Boennigheim - GERMANY

The company
PT. Ateja Tritunggal
Desa Laksana Mekar, Padalarang
KABUPATEN BANDUNG
INDONESIA

is authorised to use the UV-Label Grade 80 in accordance with UV Standard 801,
under the Test Report Number 16.1.10.0323



UV STANDARD 801
08.5.2.0054 Hohenstein

for the following articles:

woven fabric for outdoor

In the colours: dark brown, cream, light brown

100 % polyolefin; approx. 270 g/m²



The above mentioned articles were tested according to UV Standard 801 and were
found to be in compliance with the currently valid requirements of this Standard.

The holder of this Certificate has obliged himself by a Declaration of Conformity
given in accordance with EN ISO/IEC 17050-1, to use the UV label only for goods
which conform to the tested samples.

This authorisation is valid from 17th September, 2016 to
16th September, 2017.

Hohenstein, 29th August, 2016

Dr. Jan Beringer

Certification Body UV Standard 801



g. Sanitized (Anti-Mildew)

Sanitized can not support mould, mildew, or bacteria in normal conditions and is never damaged by it. Sanitized inhibits the growth of odor forming bacteria and wicks moisture away from skin.



h. Color Fastness to Chlorinated Pool Water (EN-ISO-E03)

Color Fastness to Chlorinated Pool Water specifies a method for determining the resistance of the color of textile of all kinds and in all forms to the action of active chlorine in concentrations such as are used to disinfect swimming-pool water (break point chlorinated)



i. Flammability

(BS EN 1021-1, 2006 Part 1 – Cigarette)

Principle :

- Within 20 min of removing the materials from the conditioning atmosphere, light a cigarette and draw air through it until the glows brightly. not less than 5 mm and not more 8 mm of the cigarette shall be consumed in this operation
- Position the smouldering cigarette along the junction between the vertical and horizontal parts of test assembly so that that cigarette is not less than 50 mm from one of the side edges or from any marks left from previous test, and simultaneously start the clock. If local areas of the material have a design effect which is considered likely to affect the resistance to ignition, then the test shall be carried out on the area considered to be most onerous

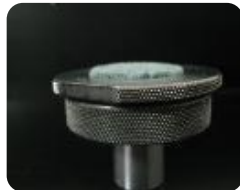


j. Abrasion Resistance



Principle :

- A circular specimen, mounted in a specimen holder and subjected to defined load, is rubbed against abrasive medium in a translational movement tracing a Lissajous figure, the specimen holder being additionally freely rotatable around its own axis perpendicular to the plane of the specimen. The evaluation of the abrasion resistance of the textile fabric is determined from the inspection interval to specimen breakdown. Specimen breakdown is reached when in a flat woven three threads are completely broken.
- The total effective mass of the abrasion load (i.e. The mass of the specimen holder assembly and the appropriate loading piece) is (795 ± 7) g for upholstery fabrics, i.e. a nominal pressure of 12 kPa.

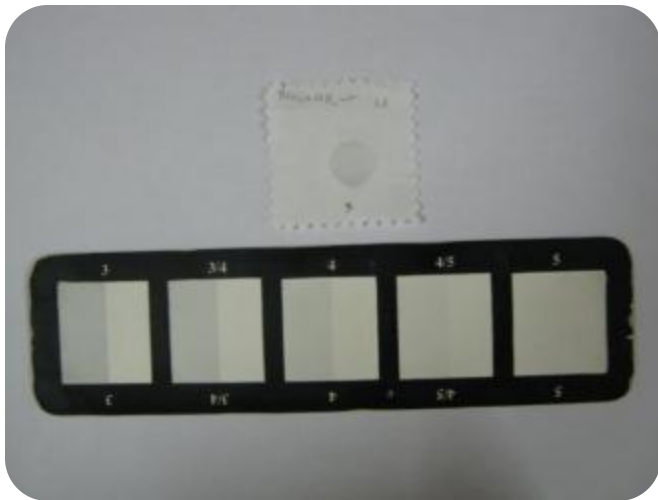


k. Color Fastness to Rubbing



Principle :

- Specimen of the textile are rubbed with a dry rubbing cloth and with a wet rubbing cloth. The Machine provides two combination of testing condition through two alternative sizes of rubbing finger : One for pile fabrics ; one for solid colour
- Place the conditioned rubbing cloth, flat over the end of finger with the weave parallel to the direction of rubbing finger. At a rate of one cycle per second, rub to and fro in a straight line 20 times, 10 times to and 10 times fro.
- Result of the staining scale 1-5 (Grade 1 : Bad, Grade 5 : Best)



I. Seam Slippage

Principle :

- A strip of fabric is folded and stitched across its width. The Strip is cut near the fold and a force is applied to the strip at right angles to the seam using grab- test jaws. The Extent to which the seam opens is measured



m. Tear Strength

Principle :

- A specially shaped test specimen cut from two wings on one side is mechanically stressed so that the stress is concentrated at a cut in such a way to cause tearing in the desired direction. The wings of the specimen are clamped inclined to the direction of the threads to be torn. The force to continue the tear over a specified length of tear is recorded. The tear force is calculated from force peaks of the autographic trace or on line by electronic means.



n. Tensile Strength

Principle :

- A fabric test specimen of specified dimensions is extended at a constant rate until it ruptures . The maximum force and the elongation at maximum force and, if required, the force at rupture and the elongation at rupture are recorded.



o. Pilling Resistance



Principle :

- A circular test specimen is passed over a friction surface comprising the same fabric or, when relevant, a wool abradant fabric, at a defined force in the form of a Lissajous figure, with the test specimen able to rotate easily around an axis through its center, perpendicular to the plane of the test specimen. Fuzzing and pilling are assessed visually after defined stages of rub testing.

p. Care Instruction



- Machine wash in lukewarm water (up to 40°C, 100°F) at a gentle setting (reduced agitation).
- Any bleach when needed.



- Ironing (Cool 160°C, 320°F).



- Do not dry clean.

- Tumble dry, low permanent press.



q. Treatment Residual

Preparation for Removing Stains :

1. First brush any substantial, encrusted marks by hand, using a brush or spatula, then vacuum clean.

2. Pre-clean with a neutral universal agent (incl. possibly dry foam as well).

3. After each cleaning remove any residual surfactant, using spray extraction.

Stain removal agents should only be worked in with a clean, damp and absorbent cloth.

A. Treat with a normal commercial oxidative bleaching agent.

B. Fresh stains: treat with an alkaline cleaning agent. Rinse off immediately - see below.

Dried-in marks: treat with an enzyme agent. Note reaction time, wipe off gently.

C. Treat with an agent containing solvent, using manual method as well (scrape off, beat lightly, vacuum clean when completely dry).

D. Treat with dye-fixing agent. Possibly treat afterward with an oxygen bleaching agent.

E. Fresh stain: treat with weak solution of organic acid (slightly acidic cleaning agent). Rinse off

immediately - see below.

Dried-in marks: treat with a normal oxidative bleaching agent.

F. Treat with a commercial rust remover or acidic stain remover. Rinse off immediately - see below.

G. Cut out burnt or melt stains. Take off piece of fabric of the same size - if none is available

After-treatment: After each cleaning we recommended the use of spray extraction to take it from a part of the material that is less visible - and stick in from the left with double sided tape.

General: These are only general recommendations that cannot unreservedly 100% removal of stains.

We recommended in all cases that you consult a professional cleaner.

Treatment of Residual Staining :

All-purpose adhesive	C	Floor polish	C	Oil	C+D	All-pu
Animal excreta	B	Flower stains	D	Oil paint	C	Animal
Baby food	B+E	Fruit juice	E	Paraffin	C	Baby f
Ballpoint pen	D	Fruit stain	E	Perfume	E	Ballpo
Beer	E	Furniture polish	D	Printer's ink	D	Beer
Blood	B	Glue (cellulose)	C	Printer ribbon	D	Blood
Blue carbon paper	D	Grass stain	E	Red lead	F	Blue c
Brandy	E	Gravy	B+C+D	Red wine	E	Brand
Burn holes	G	Hair dye	D+E	Rust	F	Burn l
Butter	C+B	Honey*	A	Salad dressing	B+E	Butter
Candle wax	C	Ice cream	B+E	Shoe cream	C+D	Candle
Carbon paper	D	Indian ink	D	Skin cream	C	Carbo
Chalk	D	Ink	D	Soil*	D	Chalk
Chewing gum	C	Jam	E	Soot	C	Chewi
Chocolate	B+C+E	Ketchup	D+E	Sparkling wine	E	Choco
Cola	A+D	Lemonade*	A+D	Synthetic resin paint	C	Cola
Cocoa	B+D	Lipstick	C+D	Street dirt*	C+A	Cocoa
Coffe	E	Make-up	C+D	Syrup	A+D+E	Coffe
Coloured pencil	D	Margarine	C+B	Tea	E	Colou
Condensed milk	B	Mayonnaise	B	Tobaco	E	Conde
Contact adhesive	C	Mediterranean wines	E	Tomato juice	D+E	Conta
Cream	B	Milk	B	Urine	B	Crean
Dust*	C+A	Motorcar oil, used	C+D	Vegetable fat	C+B	Dust*
Edible oil	C+B	Mould stain	E	Vomit	B	Edible
Egg white	B	Mud*	D	Water colour	D	Egg w
Egg yolk	B	Mustard	D+E	Wine	E	Egg y

4. Product of Sunproof

- By product from refining process
- Require less energy to produce

Energy used in production of various fibers

in MJ per KG of fiber :

Polypropylene 115

Polyester 125

Acrylic 175

- Solution dyed is clean manufacturing
- Fully recyceable
- Inert material (Oekotex Standard 100 class I & ISO 14001)

SUNPROOF PRODUCT



FABRIC



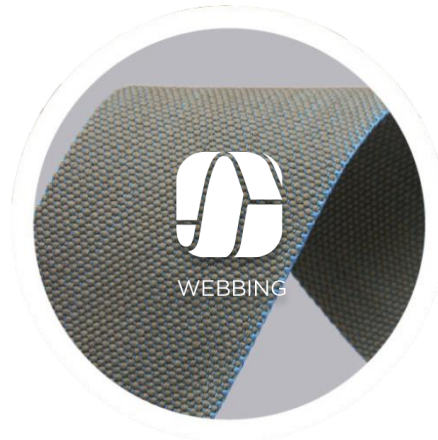
SLING



**SYNTHETIC
LEATHER**



CURTAIN



WEBBING



ROPE



SOCK



RUGS

Outdoor Sofa • Sun Lounger • Cushion



Sunproof[®] is Ateja[®] premium quality of outdoor fabric which provides the exclusive solution for your comfort. Sunproof[®] fabric uses **Solution Dyed Olefin** that is friendly to the environment because no dye bath processes are used, thereby eliminating waste effluents, which may pollute the air and water.

Outdoor Fabric Treatment :

*UV Protection, Water Repellent, Soil and Stain Release,
Anti Bacterial, and 100% Recyclable.*



As a dynamic company, we proudly present to you Sunproof[®] Sling, a woven fabric which provides incomparable performance, such as strength, breathability, vibrance and durability (strong color fastness and excellent resistance to ultraviolet rays, mould and tear).

Sling Fabric Treatment :

UV Protection, Flame Retardant, Anti Fungi, Breathable, Printable, 3 Years Warranty and Easy Maintenance.

SYNTHETIC LEATHER FOR OUTDOOR



CURTAIN FOR OUTDOOR



WEBBING FOR OUTDOOR



ROPE FOR OUTDOOR



SOCK FOR OUTDOOR

