

markilux Awning Covers

Textiles that provide shade in excellent quality –
and patterns that range from subdued to showy.

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Tested QUALITY
UV-PROTECTION according to EN 13758-1
UPF 50+
TEST NO: HL 12.5.2-0095

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STANDARD 100
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safe timeless beautiful

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markilux Awning Covers

Convincing quality and appearance

markilux awning covers are high-grade, quality products. All our woven fabrics are produced on the most modern of looms. Meticulous checks also ensure that only functionally flawless covers are supplied. However, awning covers do not serve only as effective protection against the sun, they also have a decisive impact on the colour ambience and hence the atmosphere under an awning. For even greater enjoyment of the colour ambience provided by the shade of an awning, markilux offers an extensive collection of more than 250 fabrics made from the innovative, high-tech polyester yarns, sunvas and sunsilk, as well as from the markilux specials series.

The “Oeko Tex Standard 100” certificate guarantees that no harmful dyes or chemicals were used in the manufacture of markilux awning covers.

Effective protection from UV radiation

Due to the increasing strength of UV radiation, healthcare during our leisure time is gaining in importance. Therefore, when purchasing an awning, it is important to know just how many harmful UVA and UVB rays will pass through the cover. markilux fabrics in dark colours afford 100 per cent protection. The lighter colours (right through to plain white) stop up to 97 per cent of UV radiation. These figures are based on research conducted by the Hohenstein Research Institute as well as the manufacturer of our fabric yarns.

All fabrics made of sunvas and sunsilk achieve the highest possible solar protection factor for textiles (UPF 50+). The UPF (Ultraviolet Protection Factor) specifies how much longer one can be exposed to sunlight when protected from it by the given UPF without suffering sunburn. Based purely on calculated values, woven fabrics with an ultraviolet protection factor of 50+ would enable you to sit out safely in the sun fifty times longer than you would otherwise be able to without becoming sunburnt, if you were to rely solely on the protection provided by your skin. In order to ascertain the sun protection factor required, you need to know what level of protection is provided by your own skin, as well as the length of time you wish to sit in the sun (your own protection time x sun protection factor = maximum sunbathing time).

In so doing, it is essential to bear in mind that the sun protection (awning or blind) fabric is only able to reduce the effect of direct sunlight and not that resulting from reflected UV radiation (from water, for example). Covers made from sunsilk and sunvas achieve the best values (marks 4 to 5 on a scale of 5 according to the grey scale) when rating their light fastness and weather resistance.

Bonded awning fabrics offer an improved appearance

The new ultrasonic bonding process lends the awning fabrics a vastly improved appearance. The high compression, holohedral bonding process offers many advantages: Under normal conditions the panel joints (formerly seams) are impermeable to light and water and impervious to changes in temperature. Thanks to its smoother surface, the fabric has a longer service life.



markilux awning covers are produced with bonded panel joints as standard. If covers are to be manufactured using the conventional sewing technique, these must be expressly so ordered. Covers from other fabric collections form the exception; for technical reasons these are always stitched. In the case of both bonded and stitched awning covers, the double layer of fabric at the side hems and panel joints causes unavoidable differences in the perceived colour – the fabric appears darker in this area. As a rule, markilux awning covers are made of fabric panels 120 cm wide.

The range of textile qualities

sunvas awning covers
are characterized by their textile-like touch, natural appearance and self-cleaning effect.

sunsilk awning covers
impress with their inimitable luminosity, self-cleaning effect and high durability.

Specials

perfotex. Ideal for window blinds and glass canopy or conservatory awnings. Gaps in the warp, woven into the fabric, make the material permeable to both air and water. The aluminium particles encapsulated in the coating of the fabric series 332 make it particularly effective at reducing solar gain.

transolair. The sunvas fabric with special perforation technique stands for impressive transparency and good light and air permeability. This effectively reduces the build-up of heat. We recommend transolair be used in the markilux shadeplus as well as in vertical blinds, glass canopy and conservatory awnings.

vuscreen Alu. This fabric has been woven with an openness of 3% thus allowing an excellent view outside. The aluminium particles encapsulated in the coating make it particularly effective at reducing solar gain. vuscreen Alu is a modern sun and glare protection fabric.

perla. This sunvas fabric with an additional transparent, highly water-resistant coating on the underside of the fabric offers optimum protection against rain.

perla FR. This flame-retardant and highly water-resistant sunsilk fabric complies with strict fire prevention regulations. There is a milky white coating on the underside of the fabric.

Fabric quality

	sunvas	sunsilk	perfotex	transolair	vuscreen Alu	perla	perla FR
Panel width (cm)	120, 250, 320	120	120	120, 250	252	120	120
Fabric thickness (mm)	0.45	0.37	0.36	0.48	0.85	0.45	0.43
Water impermeability (mbar)	approx. 35.0	approx. 45.0	—	—	—	approx. 100	approx. 300
Light fastness [1)]	4–5	4–5	4–5	4–5	4	4–5	4–5
Weather fastness [2)]	4–5	4–5	4–5	4–5	4	4–5	4–5
Water resistance [3)]	100	100	80–90	90	80	90–100	90–100
Ultraviolet protection factor	UPF 50 +	UPF 50 +	UPF 15–25	UPF 30–35	UPF 15–25	UPF 50 +	UPF 50 +
Oeko-Tex Standard 100	✓	✓	✓	✓	✓	✓	—
Finish	SNC	SNC	Alupig. 4) SFC	SNC	Alupig. SFC	SNC	FR SFC
Awnings with folding arms	✓	✓	—	—	—	✓	✓
Vertical blinds	✓	✓	✓	✓	✓	—	—
Glass canopy and conservatory awnings	✓	✓	✓	✓	✓	✓	✓

1) = light fastness (ISO 105/B02), grey scale → blue scale 7 to 8 on a scale of 8
2) = weather fastness (ISO 105/B04), grey scale → blue scale 7 to 8 on a scale of 8
3) = five step scale according to EN ISO 4920
4) = only fabric series 332..
UPF = Ultraviolet Protection Factor
SNC = highly effective dirt-repellent and water-resistant coating, permeable to air, weather resistant and immune to rot
SFC = dirt, water and oil-repellent coating, weather resistant and immune to rot
FR = flame-retardant, dirt, water and oil-repellent coating, weather resistant and immune to rot
Alupig. = aluminium pigmentation for the optimum reduction of solar gain

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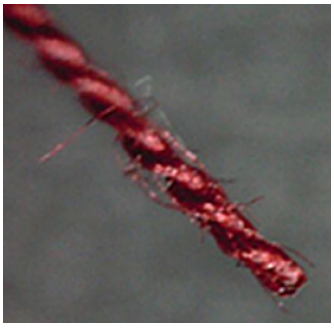
sunvas and sunsilk

Technical background

sunvas and sunsilk are innovative awning fabrics with a self-cleaning effect in rain (a minimum 14° awning pitch is required to ensure water runs off). The highly dirt-repellent finish guarantees the fabrics will retain their intensity of colour for years. Tried, tested and certified with the test symbol “self-cleaning – inspired by nature” which was awarded and verified by the internationally renowned Institute for Textile Technology and Process Engineering (ITV), Denkendorf.

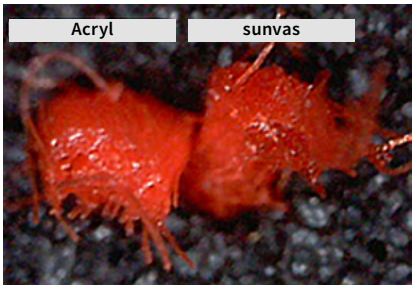
sunvas and sunsilk fabrics are manufactured in a unique process using a highly superior quality of polyester. The technical values they achieve in the finished textile are outstanding. Suspect additives, such as those used in the manufacture of acrylic fabrics, are not required, meaning that an environmentally sound production process can be guaranteed and the fabric can be recommended without reservation.

This photo depicts the textile character of sunvas material. In the production of sunsilk, a filament yarn is used which is very smooth and from a technical point of view achieves the best results in tests carried out on sunsilk, sunvas and acrylic fabrics. But sunsilk also has an unequivocal technical feel to it. For the manufacture of sunvas, spun yarn is used (to be seen in the photo by virtue of the fine ends protruding from the yarn), which lends the sunvas material its textile character.



Unique variety of colours

The almost unlimited variety of colours in sunvas and sunsilk fabrics is achieved via a unique process of yarn or piece dyeing. Depending on which fabric pattern is concerned, the yarns or fabrics are heated up and dyed through in a special process. Conventional acrylic fabrics can only be produced in a limited range of colours. In comparison, the photo shows a spun-dyed acrylic yarn and a yarn of sunvas fabric that has been dyed through.



Product characteristics and care

Awning covers are industrially manufactured textile products which serve both a functional and a decorative purpose. They are high-tech products that meet strict technical requirements. Each production cycle undergoes extensive laboratory tests. Criteria such as water impermeability, stiffness, dirt and water-repellent properties, resistance to tearing and tear propagation, colour fastness and numerous other characteristics are defined, assessed and guaranteed for each fabric type by the manufacturer. Although only first-class, quality controlled fabric is used in production, there are limits to the degree of perfection that can be achieved. Awning owners sometimes complain about certain aspects of the fabric which cannot be completely excluded, in spite of the extremely high technical standards that can be achieved today.

Detailed instructions for the awning owner containing all important information with regard to operation, care and maintenance are included with every awning delivery. Dust can best be removed when dry by means of a soft brush. Remove leaves, twigs and similar debris immediately. Small stains should be removed using lukewarm water and a commercially accepted, preferably liquid, detergent suitable for delicate fabrics (5% soap solution, water temperature max. 30°C). Rinse thoroughly with clean water.

Typical characteristics of the fabric

Small imperfections such as knots, uneven yarn thicknesses, the occasional broken yarn, waviness or uneven rolling up characteristics as well as signs of fabric stretch – especially in the region of hem or panel joint – cannot always be avoided in spite of the state-of-the-art manufacturing processes used. Furthermore, traces of handling such as slight creases, which appear as lines in the fabric when held against the light, are also unavoidable. The intrinsic weight of the fabric may cause it to sag; this effect is exacerbated when the awning is wet. markilux guarantees that the above phenomena will not have a detrimental effect on the service life of the fabric or the functionality of the awning. In this regard, we make reference to the guidelines laid down by the Industrial Association for Technical Textiles – Shutters – Solar Protection
(ITRS e.V.).

Creases

Creases can appear during the cover manufacturing process and when the fabric is folded. When viewed against the light, a dark line can be seen where the fabric has been folded, especially in the case of light colours; this is due to the fibres having been realigned (altered light refraction).

Puckering at the panel joints and in the centre of the panels

This effect can appear alongside the side hems and panel joints and in the centre of the panel. There is a double layer of fabric at the panel joints. Consequently, as the cover is wound onto the roller the two layers of fabric are forced to assume different diameters thus creating tension within the fabric. The tension of the folding arms and the weight of the roller tube and/or front profile can exacerbate this effect. Puckering can also develop if a “water trough” forms during heavy rainfall.

Resistance to rain

Solar protection fabrics are impregnated with a water-repellent finish and, if properly cared for and used at a pitch of at least 14° (to the horizontal), remain impervious to water during short, light rainfall. During prolonged and/or heavy rainfall the awning must not be extended or should be retracted to prevent damage. If the cover has become wet the awning must be extended again at the earliest opportunity so that it can dry to prevent marking of the fabric.

Side hems

In most cases an active tensioning system keeps the cover almost permanently taut. Although seams and hems provide reinforcement, they also have to withstand the most strain. When the fabric is being rolled up, the seams and hems lie on top of each other which increases the pressure and tension even more. This results in increased strain and elongation. When extending the awning, a possible slight drooping of the lateral hems may be apparent.

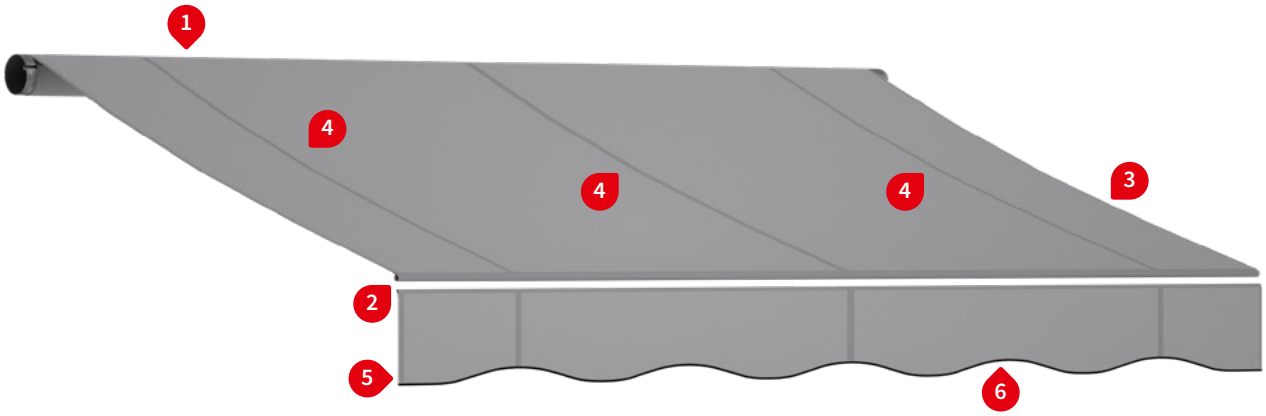
Detailed information and relevant publications including illustrations can be found at www.itrs-ev.com.

Source: ITRS INDUSTRIEVERBAND TECHNISCHE TEXTILIEN – ROLLLADEN – SONNENSCHUTZ e.V.

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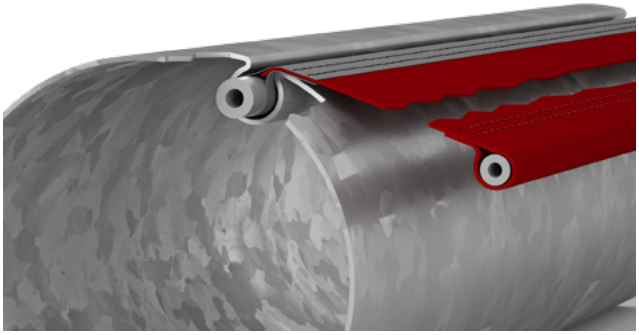
markilux Awning Covers

Cover manufacture

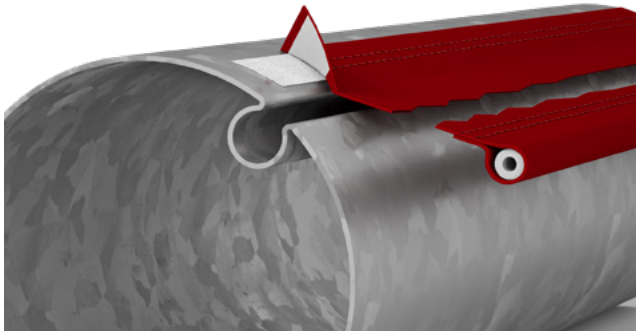


1 and 2 Cover manufacture: cover retaining methods

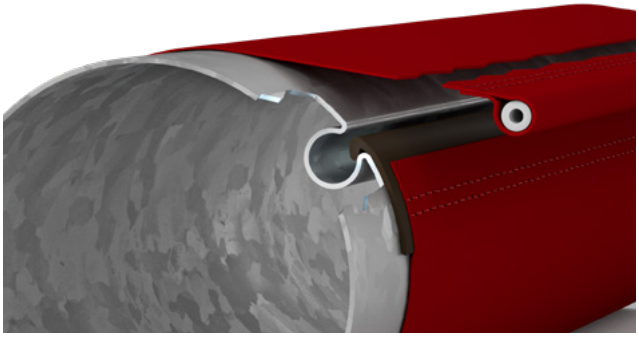
Flat folded tape at the top, optionally [4] /
open bottom pocket approx. 3 cm, stitched



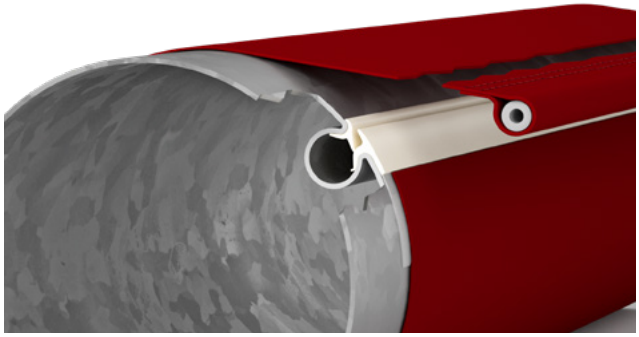
Fluffy velcro at the top, stitched on [1] (self-adhesive hooked velcro supplied) / open bottom pocket approx. 3 cm, stitched [2]



Magnetic hooked spline [1] at the top, stitched on /
open bottom pocket approx. 3 cm, stitched [3]



Quick-fit spline [1] at the top, bonded on /
open bottom pocket approx. 3 cm, stitched [2]



1) incurs a surcharge

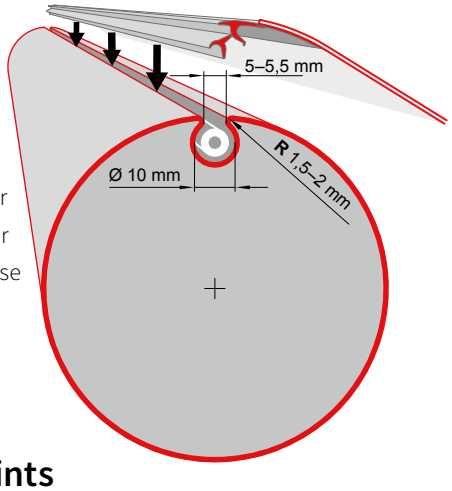
2) at least one and a half additional wraps for safety reasons, therefore add at least 30 cm to the cover drop

3) At least two additional wraps for safety reasons, therefore add at least 60 cm to the cover drop

4) Open top and bottom pockets approx. 3 cm, stitched (standard)

markilux quick-fit spline

markilux quick-fit spline makes it possible to change the cover of all current folding-arm awning models easily and quickly on site. In the case of older models and those of our competitors, the roller tube dimensions should be compared with those in the diagram before attempting to change a cover using quick-fit spline. After the old cover has been removed, the markilux quick-fit spline is pressed into the keyway in the roller along with the new cover. It is not necessary to pull the old spline out to the side. Please note that regardless of the model or cover type, at least one and a half extra wraps of material, i.e. approx. 45 cm of fabric, should be wound around the roller tube.



3 Side hems

In markilux awning covers the outer hems are turned underneath as standard. In covers that have been manufactured in horizontal panels or seamlessly, the outer edges are cut ultrasonically and thereby sealed to prevent fraying (there are no side hems). Wider outer hems can be manufactured on request (price according to the amount of work involved).

4 Panel joints

In order to achieve uniform cover performance over the full width of the awning, the cover is manufactured from panels arranged in symmetrical formation. The vertical panel joints are either bonded or stitched. Depending on the model and width of the awning, the cover will have either a central panel or central joint. Fabrics with a panel width of 250 cm or more can, depending on the model and size, be manufactured seamlessly or in horizontal panels.

5 Valance

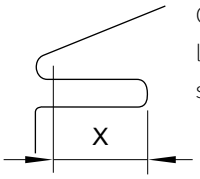
The valance always has the same pattern repeat as the cover as both are cut from the same piece of material. The shape of the valance is symmetrical at both ends. We cannot guarantee that we can reproduce the pattern repeat exactly in valances supplied at a later date.

6 Braid colours

A standard matching braid colour has been assigned to each cover pattern. If, however, the customer wishes to have a different braid colour, an alternative can be selected from the current markilux fabric brochure.

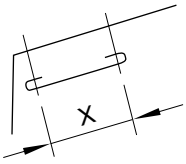
Bespoke manufacture of cover and valance in one piece (surcharge)

Option 1



Cover and valance in one piece with pocket loop stitched on underneath the cover. Loop size **X** = 3 cm, larger on request.

Option 2



Cover and valance in one piece with a pocket stitched on underneath. The width of the pocket **X** (the flat measurement) must always be supplied.

Valance styles

The valance styles depicted below are available. In the case of striped fabrics the crests and troughs of the wave cycle and the height of the valance are adjusted to the pattern repeat in the stripes.

Valance style 1 – straight



Valance style 3 – arced



Valance style 2 – wavy



Valance style 6 – undulating



Note: All covers are manufactured as standard with bonded panel joints and hems if not otherwise ordered. On request, all covers can be stitched using standard thread or at a surcharge with PTFE thread (highly UV resistant).

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Cover width and cover drop

Cover width is defined as the measurement from the outer edge of the left to the outer edge of the right hem.
Cover drop is defined as the measurement from the top edge of the top pocket to the bottom edge of the bottom pocket.

Awning cover tolerances

Tolerances in the cover width and drop

from	to	Tolerances
0	2000	+ 5 / – 5
2010	4000	+ 8 / – 8
4010	6000	+ 12 / – 12
6010	7000	+ 15 / – 15

measurements in mm

Fabric patterns with a wide repeat

The markilux collection includes fabric patterns with a repeat width of 120 cm (marked accordingly). Depending on the awning cover width, the pattern repeat is arranged centrally for these patterns.

Balcony covers

markilux balcony covers are hemmed all around (approx. 3 cm). Fabric panels from a width of approx. 120 cm are bonded. In striped fabrics, the stripes are arranged vertically. If eyelets (inside dimension: 1 cm, outside dimension: 2 cm) are required for fastening, the number of eyelets or the distance between them must be indicated. An individual eyelet arrangement according to a supplied sketch is also possible. A PVC cord to attach it to a railing can be ordered.

Bespoke awning covers

Non-rectangular and bespoke awning covers manufactured according to supplied sketches as well as those made of competitors' fabrics are available on request. Larger and special hems will be charged according to the work involved.

Awning cover dispatch

Option 1: cover rolled across its width
This largely avoids creases and stripes in the fabric. With this dispatch method, the cover can be fitted to the awning directly from the box. Covers up to 700 cm in width can be shipped rolled across their width.

Option 2: cover rolled across its drop
Please note that the awning cover must be unrolled and rolled up across its width before it can be fitted . This can lead to creasing and the the appearance of dark lines in the fabric.

Signwriting

Three different printing techniques are available:
the template, thermo-transfer and digital printing techniques.
N.B! Printing on the vuscreen Alu 317 and the perfotex 322 series is not possible.



Method 1: The template printing technique (for both covers and valances)
This process delivers a high-quality and long-lasting printing result on both covers and valances. Because three coats of paint are applied, the printed area is particularly durable. The light fastness and UV resistance values are very good (light-fastness 4 to 5 on a scale of 5, grey scale). The signwriting is applied manually using a number of handmade templates.

Method 2: The thermo-transfer printing technique (only for valances)
The thermo-transfer process is the less expensive alternative for the smaller budget and limited advertising campaigns. The signwriting is applied using a thermo-transfer process and has a limited light fastness value. The durability is less than that of the template process.

Method 3: The digital printing technique
This printing process makes virtually unlimited possibilities available. It is ideally suited for large areas and complicated, emotive images. By virtue of the optimum printing resolution of at least 70 to 100 dpi, detailed reproduction of photos and logos is perfectly realistic. Printing normally takes place on white awning material but can, on request, be supplied on Soltis Perform 92. The unprinted, white edges, which will often be in evidence because of the difference between image and cover size, can be filled with a plain colour.

N.B! In spite of the considerable care taken during their processing and despatch, the creasing and dark lines which sometimes appear in the covers and which can occur during the production process and fitting cannot always be avoided given the present technological limitations of the production process and therefore do not justify complaint.