Designer Awnings for Patio and Balcony

markilux Awning Covers

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

OEKO TEX®
STANDARD 100
A96-0071
Hohenstein HTTI

markilux.com

markilux
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 **color ambiance** and hence the atmosphere under an awning. For even greater enjoyment of the **color** ambience provided by the shade of an awning, markilux offers an extensive collection of more than 200 made from the innovative, high-tech polyester yarns, sunvas, sunsilk and **acrylic**, as well as from the markilux specials series.

The "Öko-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 the qualities sunvas and sunsilk offer a minimum of 99% protection in all colours. The open fabric qualities in the Specials series keep out at least 92% of the UV rays.

Fabrics made of sunvas, sunsilk and **acrylic** usually 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 sun-burnt, 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 –5/5 – on a scale of five 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 color – 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.

acrylic awning covers

Impressive effect. Tangible texture. **acrylic** awning fabrics are **characterized** by their unique patterns in classic shades of **color**.

421.. / 424.. / 427.. = Clean **brilliant** acrylic

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

perla FR. This highly flame-retardant and waterproof (for purpose) sunvas fabric complies with stringent fire retardancy regulations. There is a transparent coating on the underside of the fabric.

vuscreen Alu. This fabric has been woven with an openness of three percent 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.

Fabric quality

	sunvas	sunsilk	acrylic	perfotex	transolair	vuscreen Alu	perla FR
panel width (cm)	120, 250, 320	120	120	120	120, -250	252	120
fabric thickness (mm)	0.45	0.37	0.6	0.36	0.48	0,85	0.47
water pressure resistance (mbar)	ca. 35,0	ca. 45,0	ca. 36,0	—	—	—	> 100
light fastness [1)]	4–5	4–5	4–5	4–5	4–5	4	4–5
weather fastness [2)]	4–5	4–5	4–5	4–5	4–5	4	4–5
water resistance [3)]	4–5	4–5	4–5	4–5	3–4	≥ 4	3–4
ultraviolet protection factor	UPF 50 +	UPF 50 +	UPF 30–50 +	UPF 15–25	UPF 30–35	UPF 15-25	UPF 50 +
oeko-Tex Standard 100	✓	✓	✓	✓	✓	✓	✓
finish	SNC	SNC	TEXgard	Alupig. [4)] SFC	SNC	Alupig. SFC	FR SFC
folding-arm awnings	✓	✓	✓	—	—	—	✓
vertical roller blinds	✓	✓	✓	✓	✓	✓	✓
glass roof awnings	✓	✓	✓	✓	✓	✓	✓

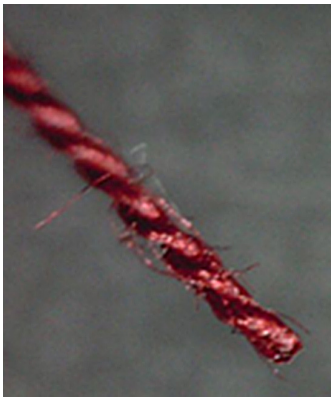
1) = light fastness ISO 105 B02, grey scale → blue scale 7–8/8
2) = weather fastness ISO 105 B04, grey scale → blue scale 7–8/8
3) = 5-step scale according to EN ISO 4920
4) = only fabric series 332..
UPF = Ultraviolet Protection Factor
SNC = highly effective dirt-repellent and water-resistant coating, permeable to air, weather resistant and immune to rot
SFC = dirt, water and oil-repellent coating, weather resistant and immune to rot
TEXgard = Water-repellent, oil- and dirt-repellent impregnation, protection against mould and algae growth
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

sunvas and sunsilk

Technical background

sunvas and sunsilk are innovative awning fabrics with a self-cleaning effect in rain (a minimum awning pitch of 14 degrees is required to ensure water runs off). The highly dirt-repellent finish guarantees the fabrics will retain their intensity of color for years.

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 colors

The almost unlimited variety of **colors** 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 **colors**. In comparison, the photo shows a spun-dyed acrylic yarn and a yarn of sunvas fabric that has been dyed through.

markilux visutex Collection

Inspiration from the fields of fashion, architecture, **color** and natural effects - fabrics with finely tuned textures and powerful colours in a particularly vivacious weave.

Innovative designed fabric patterns in the proven qualities sunsilk and sunvas - exclusively from markilux.

acrylic

acrylic is a high-quality awning fabric made of 100% premium acrylic material, which is manufactured using spun yarn both for its textile character as well as for it's ability to be spun-dyed. The **acrylic** awning fabrics are just as impressive as the sunvas and sunsilk fabrics in terms of functionality, UV resistance, **color** fastness and durability.

The special TEXgard finish guarantees the high weather fastness and excellent dirt repellency of **acrylic** awning fabrics.

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 performance criteria. Each production cycle undergoes extensive laboratory tests. Criteria such as water impermeability, stiffness, dirt and water-repellent properties, resistance to tearing and tear propagation, color 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 purchaser with all important information regarding operation, care and maintenance are included with every awning delivery.Dust and dirt can best be removed when dry using a soft brush. Remove leaves, twigs and similar debris immediately. Small marks or stains should be removed using water and a commercially accepted, preferably liquid, mild detergent (5% soap solution: water temperature max. 30 degrees). Then, thoroughly rinse the cover off with 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. Moreover, creases caused during the manufacturing process which manifest themselves as dark lines when seen against the light are unavoidable. The cover's inherent weight may mean that it sags to a certain extent. This will be exacerbated when the cover 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 if the fabric has been folded. Creases can appear during the cover manufacturing process and when the fabric has been 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 efraction).

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

Puckering can appear along the side hems, near the panel joints and in the centre of a 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 wet periods and / or heavy rainfall the awning must not be extended or should be retracted to prevent damage. If the cover becomes wet, the awning must be extended again at the earliest opportunity once the rain has stopped to allow the fabric to dry and prevent the build-up of mildew which may lead to 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 one another which increases the pressure and tension even more. They are therefore exposed to considerable tension and this can cause them to stretch. As a consequence, the side hems may sag slightly during extension and retraction of the awning.

Color effect

Awning covers in their different qualities and patterns (plain, stripes etc.) also have different color components in the fabric according to their designs. Depending on where you are looking at the cover from (top view, back light under sunlight), the awning cover can seem to have a different color effect. Your individual visual impression, personal feeling and also the location of the installation with the prevailing light conditions also play a role. The different color effects are unavoidable for physical reasons. Viewing the cover pattern from above and against the light is thus recommended as a decision-making aid. (cf. Guidelines on the Assessment of Technical Textiles, section "Color deviations with different incidences of light", published by IVRSA - in German).

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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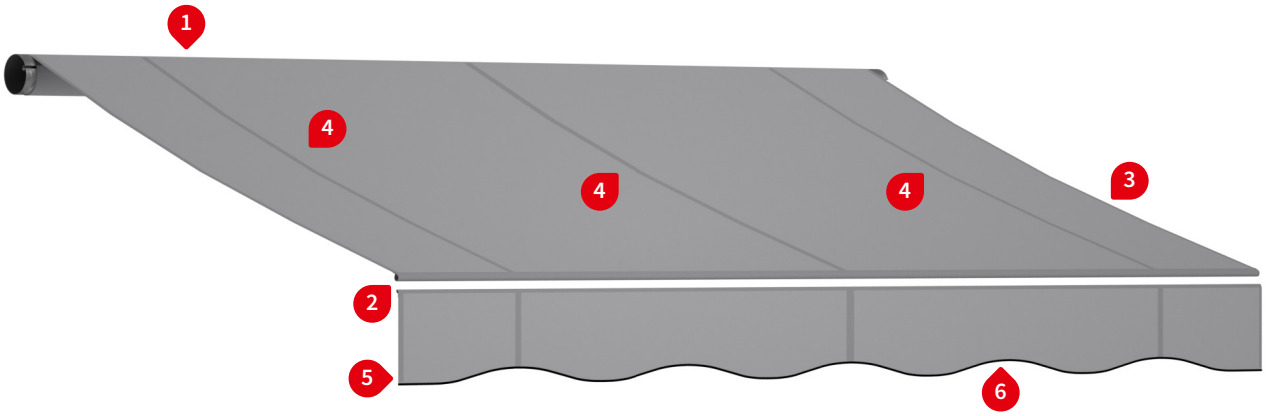
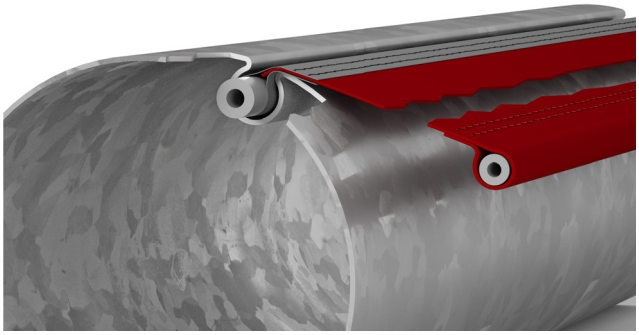
markilux Awning Covers

Cover manufacture

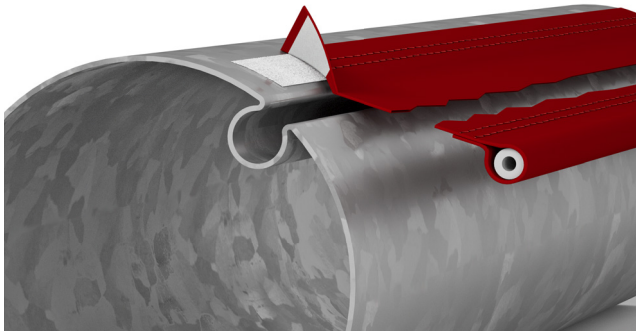


1 and 2 Cover manufacture: Cover retaining methods

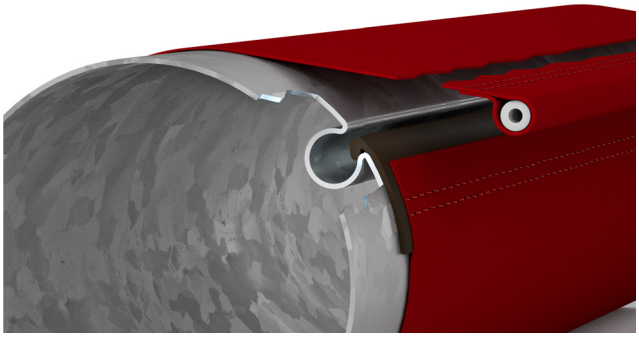
Flat folded tape at the top, optionally [4] open bottom pocket approx. 3 cm stitched



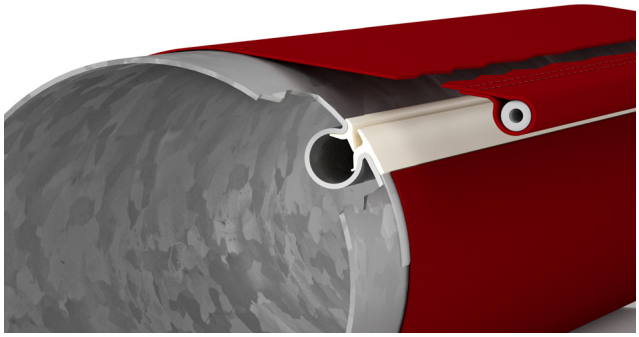
Fluffy velcro at the top stitched [1] (self-adhesive hooked velcro supplied) open bottom pocket approx. 3 cm stitched [2]



Magnetic hooked spline [1] at the top, bonded 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

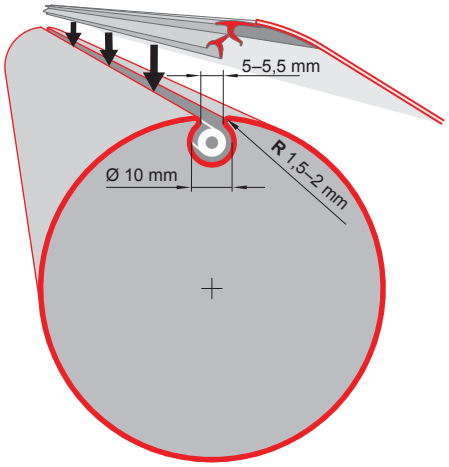
2) at least one and a half additional wraps for safety reasons, therefore add at least 30 cm to the cover drop

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 foldingarm 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 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

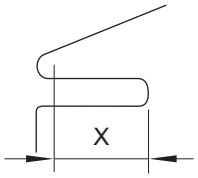
The valance always has the same pattern repeat as the cover as both are cut from the same piece of material. The shape of the valance is symmetrical at both ends. We cannot guarantee that we can reproduce the pattern repeat exactly in valances supplied at a later date.

6 Braid colours

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

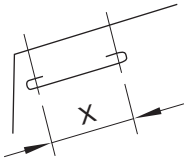
Bespoke manufacture of cover and valance in one piece (surcharge)

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.

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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

Toleranzen in Breite und Länge des Tuches

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

dimensions 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. Cover rolled in its width (possible up to a width of 700 cm).

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 perfotex 332.. 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 4–5, a scale of five, 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 70–100 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 oft en be in evidence because of the difference between image and cover size, can be filled with a plain color.

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.