

Squid® OPAQUE is a self-adhesive transparent textile for covering glass windows and doors, and glass partitions.

## PRODUCT SPECIFICATIONS

**Material**Fabric: 100% woven Polyester (PES)
Liner: Polypropylene (PP)

Made in BELGIUM

Weight

Fabric: 210 g/m<sup>2</sup> Liner: 30 g/m<sup>2</sup> Total: 240 g/m<sup>2</sup> **Fabric dimensions** 

Thickness: 0,3 mm Width: 137 cm

Length: standard roll size 25 m

## CHARACTERISTICS (See for more details below)

- · Transparency level: transparent
- Colour fastness: 5-6
- Self-adhesive (water-based acrylic pressure sensitive glue)
- Digitally printable with UV, Ecosolvent
- Chalk is available in a special version for HP Latex printers
- Digitally cuttable on flatbed cutter (Zund/Esko/Summa)
   Not recommended to cut
- Application tape: Paper: R-TAPE 4885
   Film: R-TAPE AT 75.1

- · Damp-proof
- · Check details below for partially covering facade windows
- HR++(+) glass compatible (see details below)
- · UV resistant
- · Cooling effect
- PVC-free
- Halogen-free
- · Interior application only
- · Service life: minimum 5 years

# **CERTIFICATES**

Fire classification An

Antibacterial - Antifungal

PVC Free

Oeko-Tex standard 100









## SPECIFICATIONS PER COLOR

	CHALK	BONE	OAK	ASH	ROCK	COAL
Light reflectance	56%	49%	27%	21%	14%	3%
Light transmission	42%	33%	17%	14%	9%	5%
Light absorption	2%	18%	56%	64%	77%	92%
Solar reflectance	53%	50%	40%	37%	33%	26%
Solar transmission	41%	36%	29%	28%	25%	23%
Solar absorption	6%	14%	31%	35%	42%	51%
UV transmission factor	16%	13%	10%	10%	7%	6%
Openness factor (%)	6,6	5,4	3,0	4,1	3,6	3,0





		CHALK	BONE	OAK	ASH	ROCK	COAL
Total energy transmittance and reduction factors							
Single glass $U_g = 5.8 \text{ W/(m}^2\text{K)} \text{ g} = 0.85$							
	$g_{tot}$	0,46	0,47	0,52	0,53	0,56	0,59
	$F_c$	0,54	0,55	0,61	0,63	0,65	0,70
Air-filled double glass $U_g=2.9 \text{ W/(m}^2\text{K)} \text{ g}=0.76$							
	$g_{\text{tot}}$	0,45	0,46	0,51	0,52	0,54	0,58
	$F_c$	0,59	0,61	0,67	0,69	0,71	0,76
Argon filled double layered glass $U_g$ =1,2 W/(m $^2$ K) g=0,59							
	$g_{\text{tot}}$	0,41	0,41	0,44	0,45	0,47	0,49
	$F_c$	0,69	0,7	0,75	0,77	0,79	0,83
Argon filled triple layered glass $U_g = 0.8 \text{ W/(m}^2\text{K}) \text{ g} = 0.55$							
	$g_{tot}$	0,39	0,4	0,42	0,43	0,45	0,46
	$F_c$	0,71	0,72	0,77	0,79	0,81	0,84

#### **Colour fastness**

As per DIN EN ISO 105-B02 (2014). Categorisation is from 1 (very low) to 8 (excellent).

#### Fire classification

C-s2 d0: classified following NBN EN 13501-1 (test method: NF EN 13823+A1 2015 / NF EN ISO 11925-2 2013) \*\*\*

### Suitable for damp locations

Fabrics with this finishing ensure the greatest resistance in a warm and humid climate.

#### Antibacterial/antifungal

This fabric has been treated with active agents that prevent the growth of various micro-organisms and is therefore particularly suitable for application in hospitals, nursing homes, surgeries, laboratories, etc. It can also be used in rooms with high humidity. The active agent Sanitized® gets rid of a broad spectrum of the most popular indoor molds and fungi. Sanitized® cannot guarantee that all indoor living mold and fungi species are removed.

In a very humid environment, the antibacterial properties will deteriorate more quickly.

#### PVC-free

For the treatment of this fabric, no use at all was made of PVC, i.e. it's free of any emollients or stabilisers.

#### Halogen-free

The fabric has had no treatment containing halogens.

#### Oeko-Tex® Standard 100

The Oeko-Tex® Standard 100 guarantees that successfully tested and certified textiles are free from harmful substances.

#### Computer workstation

Suitable for computer workstation environment.

#### **Textile production**

The fabric is 100% produced in Belgium (BE).

## Light reflectance %

380nm-780nm

The visible amount of the light's radiation that gets reflected back by the sun blind. The higher a fabric's level of reflectance, the smaller the amount of light that gets through.

#### Light transmission %

380nm-780nm

The visible amount of the light's radiation that gets let through by the sun blind. The higher a fabric's level of transmittance, the greater the amount of light that gets let through.

## Light absorption %

380nm-780nm

The visible amount of the light's radiation that gets absorbed by the sun blind and transformed into heat and given off again in the form of long-wave infra-red rays.

## Solar reflectance %

280-2500nm

The fraction of the total incident sunlight (visible and infra-red) which is reflected by the sun protection. The higher the solar reflectance, the less the room is heated by incident sunlight.





#### Solar transmission %

280-2500nm

The fraction of the total incident sunlight (visible and infra-red), which is transmitted by the sun protection. The higher the level of solar transmittance, the greater the amount of solar energy that gets through.

#### Solar absorption %

280-2500nm

The fraction of the total incident sunlight (visible and infra-red), which is absorbed by the sun protection and converted to heat. The greater the solar absorbency, the more the room is heated by incident sunlight.

#### **Openness Factor**

Relative area of the openings in the fabric (hole).

### UV transmission factor %

280-380nm

The degree of UV transmission as defined by DIN EN 410 indicates how much ultraviolet light is being allowed through. UV light destroys pigmentation, resulting, for instance, in faded furniture and carpets.

#### Total energy transmittance g

The g-total is the measured total energy transmittance of the glass including sun protection. The smaller the g-total, the less the room temperature increases due to incident sunlight.

#### **Reduction factor**

Relationship between total energy transmittance of glazing with sun protection (g-total) and glazing without sun protection (g). The lower the value, the greater the reduction in incident sunlight intensity by the sun protection.

## Fc Value explanation

The decisive value defining the energy-efficiency characteristics of a fabric is the Fc value which describes the efficiency of the sun protection in intercepting the incident sunlight in relation to the sun protection used and glazing type. When consistently used, a considerable minimisation of energy consumption for heating and cooling is achieved. The lower the energy class, the greater is the efficiency and thus the energy saving.

CLASS	FC VALUES OF CLASSES	IMPROVEMENT IN ROOM'S THERMAL COMFORT
1	0,20 - 0,39	very high
2	0,40 - 0,59	high
3	0,60 - 0,79	medium
4	0,80 - 0,89	low
5	> 0.90	neutral

#### Cooling effect

When you are standing behind a Squid® covered window on a sunny day, you can feel the cooling effect of Squid®. Thanks to the partial reflection of the sun, less radiation is entering through the window. The cooling effect is expressed in degrees celsius and describes the difference between the temperature you feel behind a Squid® covered window in comparison with the temperature you feel behind the same window without Squid®.

## HR++(+) glass and other glass types

All colours of Squid® Opaque can be applied when fully covering (interior and façade) windows. When partially covering facade windows, finished edge glass is required to be able to attach Squid® in a safe way. On these partially covered windows the colours Rock and Coal are not safe to use because of an increased risk for thermal cracks. Printed Squid® Opaque can not be applied onto HR++(+) glass.

For interior windows, there is no limitation in use of Squid®.

Important: Squid® can never be held responsible in case of cracks caused by thermal stress.

#### Digitally printable with UV, Ecosolvent and HP Latex

All Squid® colors can be printed roll to roll with UV, HP Latex and Ecosolvent inks. Please use generic textile ICC profiles. Please note that the textile color of the darker fabrics will influence the printed result.

## Digitally cuttable on flatbed cutter

Not recommended for sign cutting. Best results can be reached with the following settings:

ESKO tests were successful on Kongsberg 50-100m/min. settings: speed: 100% / 0.56G to 1.7G. Best cutting results with blade ref. BLD sr6150 (code G42445494). For more information please contact your local ESKO centre.

ZUND tests were successful with cutter G3\_L2500 / module UM-ZS / UCT-tool / speed: 70 / Standard glide shoe / acceleration level: 2 / Z-lower: 200 / cutting underlay: grey conveyor belt / software: ZCC. Best cutting results with an oscillating blade (Z16). For more information please contact your local ZUND centre.

Summa tests were successful on a F series F1612 (table cutter) with kiss cutting knife. Parameters: slot position: auto / speed: 800mm/s / lift up angle: 35° / overcut: 0.1mm / pause job after current tool: Off / segment helper: Off

Remark: The material will allow kiss cutting only for bigger objects +/-3mm between corners. For more information please contact your local Summa centre.

## **Application tapes**

Paper: R-TAPE 4885 / Film: R-TAPE AT 75.1





## SERVICE LIFE, STORAGE, APPLICATION AND MAINTENANCE

#### **Product characteristics**

Squid® is a textile solution that results from a series of production processes. Despite the harmonised standards in the weaving process and post-treatment, different productions may fluctuate on certain parameters. Small deviations and imperfections are inevitable and typical of the development of the Squid® textile solution and are therefore accepted. A maximum of 2 weaving errors (marked with a red sticker) are accepted on a roll of 25m.

#### Storage

Squid® can be stored in a horizontal position in its original packaging for a period of 2 years in an area with the following characteristics:

- Temperature from 15°C to 25°C
- Relative humidity from 10% to 55%

In order to avoid air bubbles and tunnelling which could cause permanent deformations, Squid® must always be kept tight around its carton core, with its beginning and end fastened by tape in three evenly distributed places on the roll, i.e. far left, middle and far right.

Squid® rolls can be stored vertically and horizontally. In the latter case, the surface must be chosen so that (imprint) damage is avoided.

## **Correct application**

#### **Acclimatisation**

Prior to installation (or printing), Squid® rolls must rest for at least 1 hour, outside of their original packaging, at a stable temperature comprised between 15°C and 22°C. Squid® must be kept tightly rolled onto its carton core. In case Squid® was transported or stored at a temperature below 15°C, the acclimatisation duration must be at least 4 hours.

#### Preparation

The windows to which Squid® is applied must be thoroughly cleaned and degreased using water with a small amount of ammonia or alcohol and then dried with a dust-free cloth.

## **Application**

Squid® should always be installed on the inside of the window and according to the guidelines given in the instructional videos that are publicly available on the Squid® web site and YouTube channel.

The temperature of the room must be between 15°C and 22°C and must remain stable. The temperature of the window surface



(inside) or glass surface must be at least 10°C, in order to ensure a good adhesion of Squid®. Wet application is not recommended

#### Seamless joints and textile orientation

Squid can also be installed seamlessly on windows that are wider than 1,37 metres. We've developed a special 3-layer method for this, based on our classic 2-layer overlap method. Watch our instructional videos to see how it works.

Make sure the textile sheets all point in the same direction. Don't forget that the Squid textile has a grain orientation. So avoid placing two pieces at right angles or in the opposite direction to each other. Squid is not omnidirectional!

#### Maintenance

To ensure Squid®'s service life, please also follow the following recommendations:

## Normal maintenance

Squid® must not be removed for maintenance. Consequently, the inside of the window on which Squid® was placed should no longer be cleaned with water. Squid® itself can be cleared of dust regularly using a microfibre cloth or a vacuum cleaner with a soft brush.

Washing in a washing machine or chemical cleaning destroys the adhesive strength. This must be avoided at all cost.

## Removing stains

Always avoid the formation of stains on Squid®. The following guidelines are recommended for removing stains.

- Remove excess liquids using an absorbent cloth and/or carefully scrape away hardened particles.
- Remove grease-free stains using a lukewarm microfibre cloth.
- Remove grease stains using a solvent-free stain remover.
   Solvents should not be used, as they reduce the strength of the glue.

We recommend that you always test the cleaner on a piece of Squid® to avoid unwanted effects.

Avoid using detergents or cleaners used for hard surfaces. Avoid excessive pressure, tensile force or abrasion force on Squid® during maintenance. These can permanently damage the textile.

These recommendations are for guidance only and cannot guarantee the complete removal of stains.

## Service Life

Squid® has a service life of minimum 5 years providing that Squid® is correctly installed on a vertical glass surface and used without any removal and repositioning after the activation of the glue. Strict compliance with the storage, application and maintenance instructions is necessary to ensure the service life of Squid®.