

Technical explanations

light fastness (EN ISO105-B02)

Light fastness is the degree of fading-resistance of a fabric colour when exposed to the daylight. Colours may fade in different pace. Therefore light fastness is judged on scale of 1 to 8, where 8 is most fade-resistant.

fire classification

Flame retardant fabrics are those with highly lowered flammability. There are few leading symbols:

B1 - defines the fabric as fire retardant according to the German Fire Protection Standard (DIN 4102) and may be used in official buildings. B1 is more common in Central and North Europe.

M1 - defines the fabric as fire retardant according to the French Fire Protection Standard (NFP 92503) and may be used in official buildings. M1 is more common in South Europe.

NFPA 701 - defines the fabric as fire retardant according to the standards developed by the National Fire Protection Association (NFPA) and may be used in official buildings. NFPA 701 is most common in America.

Av – light absorbance (EN 14500)

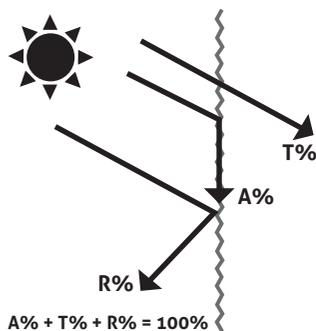
Percentage of visible sunlight that is absorbed by the fabric. The higher the percentage the more the light will be absorbed.

Tv – light transmittance (EN 14500)

Percentage of sunlight that comes through the fabric. The higher the percentage the more visible light will get into the room.

Rv – light reflectance (EN 14500)

Percentage of sunlight that is reflected by the fabric. The higher the percentage the better the light reflection.



As – solar absorbance (EN 14500)

Percentage of solar energy that is absorbed by the fabric. A low percentage means the fabric absorbs little solar energy.

Ts – solar transmittance (EN 14500)

Percentage of solar energy that comes through the fabric. A low percentage means the fabric performs well at reducing solar radiation.

Rs – solar reflectance (EN 14500)

Percentage of solar energy that is reflected by the fabric. A high percentage means the fabric performs well at reflecting solar radiation.

Tuv – UV transmittance (EN 14500)

Percentage of UV light that comes through the fabric. The higher the percentage the more UV will get into the room.

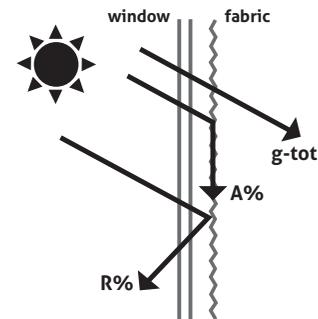
OF – openness factor

Area of the openings as a percentage of the total area of the fabric. It is considered as independent of the colour.

The lower the openness factor the less the visual contact with the outside world.

g-tot value (EN 13363-1)

G-tot value (i.e. total solar factor) is the percentage of solar energy that penetrates into a room through a combination of window and blind. A low value means good thermal performance.



Fc value (EN 14501)

Shading factor (from 0-1) of the fabric concerning solar energy. The lower the Fc value of the fabric the better the reduction of solar energy within certain type of window.

Calculation: $F_c \text{ value} = \frac{\text{g-tot value}}{\text{g value of window}}$
(g value of window = 0,7; U value of window = 1,6)

Class	g-tot values	Fc values	improvement of thermal comfort
0	$\geq 0,50$	$> 0,85$	very little
1	0,35 - 0,50	0,59 - 0,85	little
2	0,15 - 0,35	0,25 - 0,59	moderate
3	0,10 - 0,15	0,17 - 0,25	good
4	$< 0,10$	$< 0,17$	very good

NESW (=glare reduction in office environment)

The intensity of the sun is different from every geographic direction of the window. According to EU guide line the ideal value for workstations with visual displays is 500-1500 lux. The required glare control can be reached by proper Tv (light transmission) which is expressed as a maximum percentage for every direction.

