



Information on smoke and fire protection and facts on non-combustible glass fabrics

Non-combustible glass fabrics: The highest level of smoke and fire safety

With our choices in the development and in the production of non-combustible glass fabrics, our products have a significant impact in reducing the fire risk in buildings.

Acoustics

Glass fabrics have exceptional sound absorbing qualities, and combined with their unrivalled fire retardancy are the obvious choice where acoustic performance and fire safety come together.

ALPHA

Non-combustible glass fabrics for fire and smoke protection; A2 approved by the building authorities, impervious to smoke and complying with DIN EN 12101; highest temperature resistance; easy to fabricate and to assemble; expandable coatings provide outstanding insulation properties.

Approvals

Properties of non-combustible glass fabrics are continuously tested by certified facilities; certificates of building authorities and approvals can be requested. Besides, we have various certificates of international test laboratories available.

ATEX SCREEN

For the most superior solar shading; Non-combustible, DIN 4102-A2 approved by the building authorities; silicone coated; two grades: translucent and semi-transparent available in three types; colours on request; for interior and exterior applications.

Customer service

We would be pleased to offer our advice on any issues concerning the design and conception of measurements to prevent fire. For further expert advice you are welcome to contact fire brigades, local authorities as well as specialised engineering firms. We will be pleased to give advice if you are looking for an experienced fabricator.

DIN EN 13501-1; DIN 4102 – reaction to fire and classification of materials

		EN 13501-1	DIN 4102
Non-combustible Materials	Sand, glass, plaster, etc. FLAMLIN, ALPHA, ATEX SCREEN	A 1	A1
		A 2*	A2*
Combustible Materials	reduced flammability	B, C	B 1
	normal inflammable	D, E	B 2
	easily inflammable	F	B 3
smoke emission	no line-of-sight obstruction	s1	
	line-of-sight obstruction	s2	
	highly line-of-sight obstruction	s3	
drip off/ drop out	no burning dripping	d0	
	burning dripping max. 10 sec.	d1	
	burning dripping more than 10 sec.	d2	

A2-s1, d0 – FLAMLIN-fibreglass fabrics meet these stringent requirements for the highest fire safety rating. By being inherently fire-retardant, the properties of glass do not deteriorate over time. On the contrary to alternative materials, glass fabrics are non-combustible for the entire service life. According to statutory legislation, only new fabrics have to be tested. B1-fabrics deteriorate over time by contamination with dust and grease and become B2 or even worse if not regularly washed and some of them being re-impregnated.



Information on smoke and fire protection

Fabricating

Glassfibre fabrics can be fabricated without difficulty. Using the fabric appropriate according to the sewing and washing guidelines is your long lasting and reliable fire insurance.

Fields of application

Glass fabrics have their contribution in regard of preventive fire protection to make, in so many environments such as: Retirement homes, confidential record rooms, libraries, schools, night & social clubs, shopping malls, escape routes, airports, high-rise buildings, hotels, nurseries, cinemas, hospitals, cruise ships, exhibitions, museums, convention centres, stage and theatres, trains.

In terms of

Acoustics – textile sound absorption; printable surface, smoke and fire curtains, stage curtains, backlit ceilings and wall covers; awnings and canopies, banners, flags, tarpaulins, facade covers, window decor and curtains, insect screens, curtain for welding protection, interior and exterior solar shadings, sprinkler compatible ceiling fabrics – and many other creative designs.

Fire protection

Fire prevention is very important for reducing fire risks in buildings. Glass fabrics do not smoke, flame or burn, and do not contribute to the spread of flame. Glass fabrics do not drip at elevated temperatures unlike fabrics of low flammability. During the life-time the glass fabrics are non-combustible according to DIN 4102-A2. The danger of flame spreading at the source of ignition is considerably reduced.

Colours

The colour range is coordinated with the three leading fields of applications WELL-BEING – EVENT – ACTIVITY. The classic colour range is mostly corresponding to RAL- shades. It complies with the demands of international architects and designers. If your required shade is not shown in our range, we are able for larger projects to match any requested colour.

Colour chart

For each FLAMLINe-style we have a colour chart with small fabric samples in the original colours. Colour variations from batch-to-batch will be defined.

FLAMLINe

For maximum safety and innovative design: non-combustible glass fabric meeting DIN EN 13501-1; A2 approved by the GERMAN building authorities after DIN 4102. For internal use, the advantages include: textile handle, wide colour range, good sound absorption, washable, compatible with most common disinfectants, outstanding price/performance ratio.

Health

Fibreglass fabrics are made of 100% textile glass. The raw material's main components used to produce the continuous glass yarns are all naturally occurring: quartz, limestone and kaolin. Fibres are spun from a single filament diameter of 6 micron, defined as non-respirable.

Fabric properties

Glass fabrics are dimensionally stable, there is no shrink age and the breaking elongation is around 4%. The tensile strength is extraordinarily high.

Homepage

Please find all information relating to our non-combustible fabrics and all specifications to download under the following link www.flamline.de

Insurance

Ask for discounted insurance as a result of using non-combustible glassfibre fabric. Please remember that you have to document the regularly washing of B1 and B2 fabrics to provide the cover.



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Light fastness

The fabrics show a colour fastness of 5-7 to the Xenotest to the DIN 54004 standard.

Preventive fire security

Adequate preventive fire protection requires careful selection of all different issues like the building itself, evacuation plans, signs, training and materials. Non-combustible glass fabrics are one important part.

Price/performance ratio

Glassfibre fabrics are showing a very good price/performance ratio. They are inherently fire-retardant and do not require further processing or any additional cost over their life-span to retain their fire retardant properties.

Printing

It is possible to digitally print the FLAMLINe fabrics. Other printing options are available.

Safety

Non-combustible glassfibre fabrics guarantee the highest security level – non-combustible according to the European norm EN 13501-1 (EU), DIN 4102-A2 (D), SBG (EU), CSTB M0 (F), Classe 0 (I), BS 476/4 (GB), VKF (CH), IMO (International), US Coast Guard, ...

Smoke protection

Rigid fire curtains can easily be fabricated using FLAMLINe fibreglass fabrics. The ALPHA-fabrics, approved by the building authorities and coated with polyurethane offer a secure smoke protection.

Temperature resistance

Glass has a melting point of 1.250° C, the softening point is at 840° C. Colours and coatings of our fabrics are temperature resistant up to 200° C. ALPHA-fabrics with insulation properties reduce temperatures on the fire side of flexible fire prevention doors from 1.100° C down to 200° C.

Textile Architecture

With our product range of ATEX, ATEX SCREEN, FLAMLINe and ALPHA we provide architects and planners with important components to realise their ideas.

Textile experiences

It is astonishing that glass fabric shows a real soft textile handle as well as a nice fall (80-100% allowance). Many of the greatest Opera Houses of the world have used our fabrics to equip their stages.

Toxic gases

In the case of fire no toxic gases are given off by using FLAMLINe and ATEX SCREEN fabrics – a reliable argument for the responsible architect.

Upholstered seating

1 kilo of foamed material can produce up to 2.500 m³ of dangerous smoke! Interliners made of FLAMLINe fabric protect the foam, creating „non-smokers“ out of foam filled upholstered furnitures.

Washing

It is sufficient to wash FLAMLINe fabrics at 30° C. It is also possible to wash the fabric according to RKI at 40° C, but usually it is not necessary.

Time factor

The time factor is for the rescuer as well as for the person to be saved of crucial importance. Using non-combustible glass fabrics can prolong the rescue time considerably.