

Glass fibres and fabrics made of glass fibres

Version 1

1. Product and Company Information

Product information

Trade name: Glass fibres and fabrics made of

glass fibres (glass filament fabric finish and silanes, / + tapes, glass fibre fabrics / + tapes,

glass roving fabrics, glass fibre mats,

combination mats, C-glass fleece, braided hoses

and strands, ...)

Semi-finished products for industrial processing

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2. Possible dangers

This product is not subject to classification within the meaning of Regulation (EC) No 1272/2008.

Hazard overview:

It is not to be expected that there will be an immediate, acute risk to health, reactivity, flammability, or a danger to the environment if properly handled/processed and used by the product as intended.

Glass fibers are not "respirable" (i.e., they cannot penetrate the lung tissue due to their diameter of over 3µm

Other hazards:

- Transient, purely mechanical irritation (itching) of the skin, eyes and upper respiratory tract - Extremely rarely, allergic reactions can occur - Formation of non-fibrous dust particles (fragments of fractures of various sizes) or formation of fibrous particles -> especially in processes with a high risk of dust generation.

Toxicological aspects are dealt with in Section 11.

3. Composition / information on the ingredients

Glass fibre fabric made of E-glass continuous yarns with a silane adhesion promoter (finish):

E-glass (CAS 65997-17-3) is a glass with very low alkali content, with of the following composition (in oxides) in percent:



 SiO2
 52-56%

 Alkalioxide (Na2O, K2O)
 <2%</td>

 Erdalkalimetalloxide (CaO, MgO)
 16-30%

 B2O3
 5-10%

 Al2O3
 12-16%

 TiO2
 0-0.8%

 Fe2O3
 0.05-0.4%

 F2
 <1%</td>

In C&C variants, the selvedges of the fabric are made a few millimeters wide with a thermally bonded resin (made from a non-reactive, high-molecular polymer in an amount significantly less than 1% and not listed as a hazardous substance).

Silane Adhesion Promoters < 0.3% (w/w)

The silanized fabrics are not permitted in accordance with EC Directives/Hazardous Substances Ordinance.

Labelling required

Fiberglass fabric made of E-glass continuous yarns with a polymer coating:

High molecular polymer 1,0 – 10,0 %

"High molecular weight polymers" are considered by our suppliers to be non-risky and do not require registration in accordance with REACH Regulation paragraph 3, No.3.

4. First aid measures

<u>Cause</u>	<u>Effect</u>	First aid
Inhale	Temporary irritation	Bringing the person out into the fresh air
Skin contact	Temporary irritation	Rinse skin under running water
Eye contact	Temporary irritation	Rinse eye under running water
Swallow	Observe the person for a few days to avoid an intestinal obstruction.	Consult a doctor

5. Firefighting measures

The product is non-flammable.

The material can be classified as non-flammable due to its low organic content. Only the surface coating and the resin on the selvedges of the C&C variants are flammable, but they account for less than 10% of the final weight of the product.

Under the influence of high temperatures, e.g. a camp fire, decomposition products such as carbon dioxide, carbon monoxide and decomposition products from incomplete combustion can be produced from the equipment components.



Suitable extinguishing agents: Water, foam, CO2 or powder

When fighting fires in confined spaces, protective equipment and self-contained breathing apparatus

must be used.

Unsuitable extinguishing agents: Not known

6. Accidental Release Measures

No special measures required. See also section 13 on waste management.

7. Handling and storage

Prolonged skin contact is not recommended.

This material does not require any special storage conditions. Nevertheless, a Storage at room temperature recommended for optimal further processing.

8. Exposure limitation and personal protective equipment

Use appropriate measures (suction, modification of manufacturing processes to reduce fiber dust, etc.) to reduce fiber concentration and exposure to irritating dusts.

In order to meet the legal requirements, air quality tests are recommended in the areas where the glass fabric is regularly used (tests to determine the concentration of fibers and dusts).

Occupational exposure limit values

The following table shows the occupational exposure limit values (OEL) for respirable and non-respirable glass dusts and glass fibres to be complied with in various countries.

<u>Land</u>	<u>Dusts</u>	OEL(mg/m³ over 8 hours)	<u>Fibers</u>	AGW(fibre/ml per 8 hours)
Austria	fine	6	total	0,5
Belgium	total	10	no regulation	-
Denmark	Respirable total	510	total	1
Finland	total	10	total	1
France	total	10	respirable	1
Germany	respirable	3	respirable	0,25
Great Britain	Respirable total	510	respirable	2
Ireland	respirable	5	respirable	2
Italy	Respirable total	310	total	1
Norway	Respirable total	510	total	1
Portugal	total	4	total	1
Spain	total	10	total	1
Sweden	Respirable total	5 10	total	1
Switzerland	total	6	respirable	0,5



<u>Land</u>	<u>Dusts</u>	<u>OEL</u> (mg/m³ over 8 hours)	<u>Fibers</u>	AGW (fibre/ml per 8 hours)
Netherlands	Respirable total	210	total	1
United States	Respirable total	5 (Osha)*15 (Osha)*	total	1 (ACGIH)**

^{*} OSHA = Occupational Safety and Health Administration

Personal protective equipment

Act in accordance with the hygiene and safety conditions customary in the industry.

Respiratory protection and eye protection: If there is occasionally a high level of dust development, the cannot be contained with the general protective equipment, wear a Dust mask.

Hand protection: People with sensitive skin should wear gloves.

Body Protection: Wear long-sleeved tops and long pants to avoid

Irritation.

9. Physical and Chemical Properties

Physical state/form: Fixed, fabric on rolls

Color: White Smell: none

ph: not applicable

Density E-Glas = 2,60g/cm3

Approx. 850 °C for E-glass Softening point

Approx. 1200 °C Melting point

Decomposition temperature Glass fabric is non-flammable. Other

components > 200 °C

Danger of explosion: not applicable Flash point: not applicable

10. Stability and reactivity

Stable when handled properly; Storage/intended Stability:

use.

Incompatible substances and conditions to

avoid:

none known

^{**} ACGIH = American Conference of Governmental Industrial Hygienists



Dangerous decomposition products

Depending on the fire conditions, carbon monoxide, carbon dioxide and very small amounts of the decomposition products (formic acid, acetone and hydrocarbons) can be produced.

11. Toxicology information

Acute toxicity Possible temporary, purely mechanical irritation

from fibers that can affect the skin, eyes and upper

respiratory tract

Long-term toxicity There are no known health restrictions from long-

term exposure to this product. Exception: extremely rare allergic reaction to continuous fiber glass fabric

Carcinos Risiko The table below shows which authorities have listed

continuous glass fibers as carcinogenic:

 IngredientContinuous
 ACGIH
 IARC
 NTPN
 OSHA

 filament - Glass fiber
 No
 No
 No
 No

Continuous filament glass fiber: In June 1987, the International Agency for Research on Cancer (IARC) classified continuous filament glass fibers as non-classifiable with regard to human carcinogenicity (Group 3). The results of studies on humans and animals were judged by the IARC to be insufficient to classify continuous filament glass fibers as a material with a confirmed, probable or even possible carcinogenic effect.

Recent studies have not led to a different assessment either.

The essential factor with glass fibers is that the continuous filament glass fibers are not "respirable" (i.e. they do not penetrate the alveoli / due to their diameter of over 3 µm).

Even after handling and processing, the data measured in the working environment respirable particles are 50 to 100 times lower than the applicable limit values.

12. Environmental claims

E-glass is not biodegradable.

Since the concentration of the other product components and their solubility are low, optical fibres have not been found to have any adverse eco-toxicological effects.

13. Disposal Instructions

In compliance with regional regulations as non-hazardous waste or industrial waste EWC - 101103 glass fabric waste cannot be disposed of by incineration.



14. Transport details

Glass fabric is neither dangerous goods in the sense of transport regulations nor internationally listed in a dangerous goods class. No special handling is required. It is recommended that they be transported at room temperature and in their original packaging.

15. Regulations

REACH Regulation No. 1907/2006

Continuous filament glass products are not classified as a "hazardous substance" or a "hazardous mixture" according to Article 3(3) of the REACH Regulation. There is no obligation to register under Article 6(1) of the Regulation.

Classification and Labelling (EEC)

This product is not subject to any labelling requirements under Council Directives 88/379EEC, 67/548/EEC, Annex I, and 97/69/EC.

Release Declaration for:

Directive 2002/95/EEC for RoHS and Directive 2002/95/EC. Product analyses have shown that glass fabric complies with the limits of these two directives.

16. Other information

This information is based on our current knowledge and the information provided by our suppliers and describes the product only with regard to safety requirements. We assume that they are correct to the best of our knowledge and belief. They do not constitute a guarantee of characteristics and do not claim to be complete. They do not take into account all the circumstances in which the product may be used, nor all the physical and psychological characteristics of the persons responsible for transporting or processing the product.

According to Regulation (EC) No. 1907/2006 [REACH] Article 3(3), this product is classified as an article, therefore there is no obligation to register the ingredients or prepare a safety data sheet, as required by Article 31 of the REACH Regulation. This document was prepared voluntarily in accordance with Annex II of the Regulation under the aspect of "Responsible Care".

Company:	Date:	Department:
HP-Textiles GmbH, D-48480 Schapen -Germany-	2025-01-23 (Version 1)	Application Technology / QA LS / HJ