MFPA Leipzig GmbH

Testing, Inspection and Certification Authority for
Construction Products and Construction Types

Business Division III - Structural Fire Protection
Dr.-Ing. Peter Nause

Work Group 3.1 - Fire Behavior of Building Products
Mathias Claus
Telephone +49 (0) 341 - 6582-125
claus@mfpa-leipzig.de

-Certified translation from German-

Classification Report No. KB 3.1/13-180-1
Report on the classification of the fire behavior

of July 1, 2013
1st copy

Client:	Vitrulan Textile Glass GmbH Bernecker Strasse 8 95509 Marktschorgast
Subject matter:	Classification of the fire behavior according to DIN EN 13501-1:2010
Object:	Group 1: „ Slip-resistant glass fabric for the decorative and functional wall design as natural white or white-pigmented material with and without water-activated glue coat at the rear side.“
Order date:	03/06/2013
Prepared by:	M. Claus

This classification report consists of 6 sheets.

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-11021-01-00

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Nach Landesbauordnung (SAC 02) anerkannte und nach Bauproduktengesetz (NB 0800) notifizierte PUZ-Stelle

Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH (MFPA Leipzig GmbH)

Sitz:	Hans-Weigel-Str. 2b – 04319 Leipzig/Germany
Geschäftsführer:	Prof. Dr.-Ing. Frank Dehn
Handelsregister:	Amtsgericht Leipzig HRB 17719
USt-Id Nr.:	DE 813200649
Tel.:	+49 (0) 341 - 6582-0
Fax:	+49 (0) 341 - 6582-135

1 Details of the classified building product

According to the client, the building product to be classified was a product representative of group 1: „ Slip-resistant glass fabric for the decorative and functional wall design as natural white or white-pigmented material with and without water-activated glue coat at the rear side", which was glued over the full surface of plasterboards.

The glass fabric had a white color.

The specimens were prepared without additional paint coat.

According to the client, the building product met the following European product certifications: DIN EN 15102:2011.

1.1 Description of the building product

The client grouped the products in a product family with the appropriate properties.

Table 1: Material properties of the product representative of group 1 selected by the client

Thickness [mm]	approx. 0.6
Weight per unit area [g/m²]	approx.321
Loss on ignition [g/m²]	approx. 100

1.2 Setup for the tests according to DIN EN 13823

The 0.6 mm thick samples were glued to 12.5 mm thick plasterboards according to DIN EN 13238 Table 1.

The product representative of group 1 was arranged vertically forming a cross joint according to DIN EN 13823, section 5.2.2, item e) at the plasterboard carrier panel.

2 Test reports and test results used as basis for classification

2.1 Test reports

Name of laboratory	Client	Number of test report	Test method
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-409Ä of 26/03/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-410Ä of 26/03/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-398Ä of 26/03/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-387Ä of 26/03/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-407Ä of 26/03/2010	DIN EN ISO 11925-2 (30 s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-408Ä of 26/03/2010	DIN EN ISO 11925-2 (30 s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-388Ä of 26/03/2010	DIN EN ISO 11925-2 (30 s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/09-400Ä of 23/03/2010	DIN EN ISO 11925-2 (30 s flaming time)

2.2 Test results according to DIN EN 13823 for the selected product representative of group 1

Test method	Parameter	Number of tests	Test results	
			Constant parameters (average value)	Requirement met (Y/N)
DIN EN 13823	Figra $_{0.2\ MJ}$	3	55	(-)
	Figra $_{0.4\ MJ}$	3	0	(-)
	LFS < edge	3	(-)	Y
	THR $_{600s}$ [MJ]	3	1.0	(-)
	Smogra [m²/s²]	3	0	(-)
	TSP$_{600s}$ [m²]	3	18	(-)
	Burning dripping down/dropping down	3	(-)	No burning dripping down/dropping down

(-) not applicable

2.3 Test results according to DIN EN ISO 11925-2 for the selected product representative of group 1

Test method	Parameter	Number of tests	Test results	
			Constant parameters (average value)	Requirement met (Y/N)
DIN EN ISO 11925-2 Area and edge flaming 30 s flaming	Fs ≤ 150 mm	7	(-)	Y
	Burning dripping down/dropping down	7	(-)	No burning dripping down/dropping down
	Ignition of filter paper	7	(-)	No ignition

(-) not applicable

3 Classification and field of application

3.1 Basis of classification

This classification was carried out in compliance with sections 11 and 14.1 of the norm DIN EN 13501-1:2010 as well as the product norm DIN EN 15102:2011.

3.2 Classification

The product representative of group 1: „Slip-resistant glass fabric for the decorative and functional wall design as natural white or white-pigmented material with and without water-activated glue coat at the rear side."

Is classified in terms of its fire behavior: B

Additional classification in terms of smoke development: s1

Additional classification in terms of burning dripping down/dropping down is: d0

The format of classification of the fire behavior of the building product is:

Fire behavior		Smoke development			Burning dripping down/dropping down	
B	-	s	1		d	0

i.e. **B – s1, d0**

Classification of fire behavior: B – s1, d0

3.3 Field of application of product

This classification in section 3.2 shall be valid only for the building products described in section 1 and shall be applicable to the following final conditions of application:

- The product representative of group 1: „ Slip-resistant glass fabric for the decorative and functional wall design as natural white or white-pigmented material with and without water-activated glue coat at the rear side." may be used at plasterboards and substrates of Euro class A1 or A2-s1, d0 with a minimum bulk density of 525 kg/m³ and a minimum thickness of 12 mm.
- The thickness of the glass fabric shall be ≤ 0.6 mm.
- Classification for the glass fabrics shall be applicable to weights per unit area of ≤ 321 g/m².
- Classification shall be applicable to gluing with commercial dispersion glue for a wet application amount of ≤ 350 g/m² to gluing with glue coat at the rear side which can be activated by water.
- Classification shall be applicable to glass fabrics with a maximum loss on ignition of 100 g/m²
- Classification shall be applicable to use without paint coat.

4 Restrictions

4.1 In connection with other building products, in particular insulation materials with bulk density ranges other than those given in section 3.3, the fire behavior may be affected such that the classification in section 3.2 is no longer applicable. The fire behavior in connection with other building products or other bulk density ranges or thickness ranges shall be demonstrated separately.

4.2 The classification assigned to the building product in this report is suitable for the manufacturer's statement of conformity within the verification procedure system 3 together with a CE mark within the Building Products Guideline.

4.3 This document shall not be deemed a type approval or product certification and shall not substitute a verification of applicability according to State building regulations, if any, as required under the provisions of the German building law (State building regulations).

4.4 This classification report shall be valid as long as the product composition and the product structure, respectively, the base materials or the production process and building regulations are not modified.

Leipzig, July 1, 2013

Dr.-Ing. P. Nause	Dipl.-Phys. G. Brinkmann	M. Claus
Head of Business Division	*Head of Testing Centre*	*Testing Engineer*

Having been publicly appointed and generally sworn in as a translator for English by the President of the Leipzig Regional Court, I hereby certify the above translation of the document submitted to me as an original in the German language to be correct and complete.

Leipzig, 30/07/2013

MFPA Leipzig GmbH

Testing, Inspection and Certification Authority for
Construction Products and Construction Types

Business Division III - Structural Fire Protection
Dr.-Ing. Peter Nause

Work Group 3.1 - Fire Behavior of Building Products
Mathias Claus
Telephone +49 (0) 341 - 6582-125
claus@mfpa-leipzig.de

-Certified translation from German-

Classification Report No. KB 3.1/13-180-3
Report on the classification of the fire behavior

of July 1, 2013
1st copy

Client:	Vitrulan Textile Glass GmbH Bernecker Strasse 8 95509 Marktschorgast
Subject matter:	Classification of the fire behavior according to DIN EN 13501-1:2010
Object:	Group 2: „White pigmented and natural white non-pigmented glass mat with and without polyester fibers for the decorative and functional wall design with and without water-activated glue coat at the rear side.“
Order date:	03/06/2013
Prepared by:	M. Claus

This classification report consists of 6 sheets.

ilac-MRA DAkkS Deutsche Akkreditierungsstelle D-PL-11021-01-00

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Geschäftsführer:	Prof. Dr.-Ing. Frank Dehn
Handelsregister:	Amtsgericht Leipzig HRB 17719
USt-Id Nr.:	DE 813200649
Tel.:	+49 (0) 341 - 6582-0
Fax:	+49 (0) 341 - 6582-135

1 Details of the classified building product

According to the client, the building product to be classified was a product representative of group 2: „ White pigmented and natural white non-pigmented glass mat with and without polyester fibers for the decorative and functional wall design with and without water-activated glue coat at the rear side.", which was glued over the full surface of plasterboards.

The glass fabric had a white color.

The specimens were prepared without additional paint coat.

According to the client, the building product met the following European product certifications: DIN EN 15102:2011.

1.1 Properties of the classified building products

The client grouped the products in a product family with the appropriate properties.

Table 1: Material properties of the product representative of group 2 selected by the client

Thickness [mm]	approx. 0.4
Weight per unit area [g/m²]	approx. 226
Loss on ignition [g/m²]	approx. 81

1.2 Setup for tests according to DIN EN 13823

The 0.4 mm thick samples were glued to 12.5 mm thick plasterboards according to DIN EN 13238 Table 1.

The product representative of group 2 was arranged vertically forming a cross joint according to DIN EN 13823, section 5.2.2, item e) at the plasterboard carrier panel.

2 Test reports and test results used as basis for classification

2.1 Test reports

Name of laboratory	Client	Number of test report	Test method
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-064-1 of 29/03/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-119-1 of 17/05/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-408-1 of 23/02/2011	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-181-1 of 26/07/2010	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/12-183-1 of 22/06/2012	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/12-417-1 of 10/12/2012	DIN EN 13823
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-064-2 of 29/03/2010	DIN EN ISO 11925-2 (30s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-119-2 of 18/05/2010	DIN EN ISO 11925-2 (30s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-408-3 of 23/02/2011	DIN EN ISO 11925-2 (30s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/12-417-2 of 10/12/2012	DIN EN ISO 11925-2 (30s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/10-181-2 of 26/07(2010	DIN EN ISO 11925-2 (30s flaming time)
MFPA Leipzig GmbH	VITRULAN Textile Glass GmbH	PB3.1/12-183-2 of 25/06/2012	DIN EN ISO 11925-2 (30s flaming time)

2.2 Test results according to DIN EN 13823 for the selected product representative of group 2

Test method	Parameter	Number of tests	Test results	
			Constant parameters (average value)	Requirement met (Y/N)
DIN EN 13823	Figra $_{0.2\ MJ}$	3	51	(-)
	Figra $_{0.4\ MJ}$	3	0	(-)
	LFS < edge	3	(-)	Y
	THR $_{600s}$ [MJ]	3	0.9	(-)
	Smogra [m²/s²]	3	0	(-)
	TSP_{600s} [m²]	3	31	(-)
	Burning dripping down/dropping down	3	(-)	No burning dripping down/dropping down

(-) not applicable

2.3 Test results according to DIN EN ISO 11925-2 for the selected product representative of group 2

Test method	Parameter	Number of tests	Test results	
			Constant parameters (average value)	Requirement met (Y/N)
DIN EN ISO 11925-2 Area and edge flaming 30 s flaming	Fs ≤ 150 mm	8	(-)	Y
	Burning dripping down/dropping down	8	(-)	No burning dripping down/dropping down
	Ignition of filter paper	8	(-)	No ignition

(-) not applicable

3 Classification and field of application

3.1 Basis of classification

This classification was carried out in compliance with sections 11 and 14.1 of the norm DIN EN 13501-1:2010 as well as the product norm DIN EN 15102:2011.

3.2 Classification

Group 2: „White pigmented and natural white non-pigmented glass mat with and without polyester fibers for the decorative and functional wall design with and without water-activated glue coat at the rear side."

Is classified in terms of its fire behavior: B

Additional classification in terms of smoke development: s1

Additional classification in terms of burning dripping down/dropping down is: d0

The format of classification of the fire behavior of the building product is:

Fire behavior		Smoke development			Burning dripping down/dropping down	
B	**-**	**s**	**1**		**d**	**0**

i.e. **B – s1, d0**

Classification of fire behavior: B – s1, d0

3.3 Field of application of product

This classification in section 3.2 shall be valid only for the building products described in section 1 and shall be applicable to the following final conditions of application:

- The product representative of group 2: „ White pigmented and natural white non-pigmented glass mat with and without polyester fibers for the decorative and functional wall design with and without water-activated glue coat at the rear side." may be used at plasterboards and substrates of Euro class A1 or A2-s1, d0 with a minimum bulk density of 525 kg/m³ and a minimum thickness of 12 mm.
- The thickness of the glass mat shall be ≤ 0.4 mm.
- Classification for the fiber glass mats shall be applicable to weights per unit area of ≤ 226 g/m².
- Classification shall be applicable to gluing with commercial dispersion glue for a wet application amount of ≤ 175 g/m² to gluing with glue coat at the rear side which can be activated by water.
- Classification shall be applicable to fiber glass mats with a maximum loss on ignition of 81 g/m²
- Classification shall be applicable to use without paint coat.

4 Restrictions

4.1 In connection with other building products, in particular insulation materials with bulk density ranges other than those given in section 3.3, the fire behavior may be affected such that the classification in section 3.2 is no longer applicable. The fire behavior in connection with other building products or other bulk density ranges or thickness ranges shall be demonstrated separately.

4.2 The classification assigned to the building product in this report is suitable for the manufacturer's statement of conformity within the verification procedure system 3 together with a CE mark within the Building Products Guideline.

4.3 This document shall not be deemed a type approval or product certification and shall not substitute a verification of applicability according to State building regulations, if any, as required under the provisions of the German building law (State building regulations).

4.4 This classification report shall be valid as long as the product composition and the product structure, respectively, the base materials or the production process and building regulations are not modified.

Leipzig, July 1, 2013

Dr.-Ing. P. Nause	Dipl.-Phys. G. Brinkmann	M. Claus
Head of Business Division	*Head of Testing Centre*	*Testing Engineer*

Having been publicly appointed and generally sworn in as a translator for English by the President of the Leipzig Regional Court, I hereby certify the above translation of the document submitted to me as an original in the German language to be correct and complete.
Leipzig, 30/07/2013

MFPA Leipzig GmbH

Testing, Inspection and Certification Authority for
Construction Products and Construction Types

Business Division III - Structural Fire Protection
Dipl.-Ing. Sebastian Hauswaldt

Work Group 3.1 - Fire Behavior of Building Products
Mathias Claus
Telephone +49 (0) 341 - 6582-125
claus@mfpa-leipzig.de

-Certified translation from German-

Classification Report No. KB 3.1/14-136-3

Report on the classification of the fire behavior

of June 4, 2014
1st copy

Client:	Vitrulan Textile Glass GmbH Bernecker Strasse 8 95509 Marktschorgast
Subject matter:	Classification of the fire behavior according to DIN EN 13501-1:2010-01*
Object:	Group 8: „Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side “
Order date:	11/04/2014
Prepared by:	M. Claus

This document consists of 5 sheets.

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Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH (MFPA Leipzig GmbH)

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Geschäftsführer:	Prof. Dr.-Ing. Frank Dehn
Handelsregister:	Amtsgericht Leipzig HRB 17719
USt-Id Nr.:	DE 813200649
Tel.:	+49 (0) 341 - 6582-0
Fax:	+49 (0) 341 - 6582-135

1 Details of the classified building product

1.1 General

According to the client, the building product to be classified was a product representative of group 8: „Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side" which belongs to the decorative wall lining materials. According to the client, this building product is subject to the harmonized European product norm DIN EN 15102:2011-12.

1.2 Description

The product representative of group 8 is described in the following.

According to the client, the building product to be classified was a product representative of group 8: „Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side ", which has been glued onto the full area of gypsum plasterboards.

The product group representative had a white color.

The client characterized the product group representative with the following properties.

- Cellulose-based fleece:
  - Weight per unit area: (145 ± 10) g/m²
  - Glue (pre-applied): (15 ± 5) g/m²
  - Thickness: approx. 0.26 mm
  - Loss on ignition: approx. 136 g/m²

1.3 Setup for tests according to DIN EN 13823

The samples with a thickness of 0.26 mm were glued to 12.5 mm thick gypsum plasterboards according to DIN EN 13238, Table 1.

The building product to be classified was a product representative of group 8: „Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side " was arranged vertically with a vertical joint according to DIN EN 15102:2011-12, Annex B, Section B.3, Table B.2, line 3 as well as according to DIN EN 13823, Section 5.2.2, indent e) and glued onto the wide wing of the sample.

2 Test reports and test results used as basis for classification

2.1 Reports

Name of laboratory	Client	Number of test report	Test method
MFPA Leipzig GmbH	Vitrulan Textile Glass GmbH	PB3.1/14-136-1 of 03/06/2014	DIN EN 13823
MFPA Leipzig GmbH	Vitrulan Textile Glass GmbH	PB3.1/14-136-2 of 03/06/2014	DIN EN ISO 11925-2 (30s flaming time)

2.2 Results

Test method	Parameter	Number of tests	Test results	
			Constant parameters (average value)	Requirement met (Y/N)
DIN EN 13823	Figra $_{0.2\ MJ}$ Figra $_{0.4\ MJ}$ LFS < edge THR $_{600s}$ [MJ]	3 3 3 3	114 64 (-) 1,4	(-) (-) Y (-)
	SMOGRA [m^2/s^2] TSP_{600s} [m^2]	3 3	0 24	(-) (-)
	Burning dripping down/dropping down	3	(-)	No burning dripping down/dropping down
DIN EN ISO 11925-2	Fs ≤ 150 mm	8	(-)	Y
	Burning dripping down/dropping down	8	(-)	No burning dripping down/dropping down
	Ignition of filter paper	8	(-)	No ignition

(-) not applicable

3 Classification and field of application

3.1 Basis of classification

This classification was carried out in compliance with sections 11 and 14.1 of the norm DIN EN 13501-1:2010-01 as well as the product norm DIN EN 15102:2011-12.

3.2 Classification

The product group representative for group 8: „ Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side "
is classified in terms of its fire behavior: B

Additional classification in terms of smoke development: s1

Additional classification in terms of burning dripping down/dropping down is: d0

The format of classification of the fire behavior of the building product is:

Fire behavior		Smoke development			Burning dripping down/dropping down	
B	-	s	1		d	0

i.e. **B – s1, d0**

Classification of fire behavior: B – s1, d0

3.3 Field of application of product

Classification in section 3.2 shall be valid only for the building products described in section 1 and shall be applicable to the following final conditions of application:

- Product group representative for group 8: „Slip resistant cellulose-based fleece for the decorative and functional wall design as white-pigmented material with and without water-activated glue coat at the rear side" may be used at gypsum plasterboards and surfaces of Euro class A1 or A2-s1, d0 with a minimum bulk density of 525 kg/m³ and a minimum thickness of 12 mm.
- The thickness of the cellulose-based fleece must be ≤ 0.26 mm.
- Classification for the cellulose-based fleece is applicable to weights per unit area of ≤ (145 ± 10) g/m².
- Classification is applicable to a rear-side adhesive coat with an application amount of ≤ (15 ± 5) g/m².
- Classification is applicable to cellulose-based fleece with a loss on ignition of 136 g/m²

4 Restrictions

4.1 In connection with other building products, in particular insulation materials with bulk density ranges other than those given in section 3.3, the fire behavior may be affected such that the classification in section 3.2 is no longer applicable. The fire behavior in connection with other building products or other bulk density ranges or thickness ranges shall be demonstrated separately.

4.2 The classification assigned to the building product in this report is suitable for the manufacturer's statement of conformity within the verification procedure system 3 together with a CE mark within the Building Products Guideline.
The manufacturer submitted a statement which is enclosed to the documents. This statement confirms that the product design does not include any specific processes, methods or procedures (e.g. no addition of flame retardant substances, limitation of organic components or the addition of fillers) in order to improve the fire behavior to obtain the achieved classification. As a consequence, the manufacturer concluded that the system 3 of the conformity statement procedure is appropriate.
Thus the test laboratory did not play a part for the selection of samples, although the test laboratory has appropriate references available - which were provided by the manufacturer - to follow up the tested samples.

4.3 This document shall not be deemed a type approval or product certification and shall not substitute a verification of applicability according to State building regulations, if any, as required under the provisions of the German building law (State building regulations).

4.4 This classification report shall be valid unless the product composition and/or the product structure, the base materials or the production process and the building regulations and/or the assessment bases are modified.

Leipzig, June 4, 2014

Dipl.-Ing. S. Hauswaldt	Dipl.-Ing. (FH) J. Dahncke	M. Claus
Head of business division	*Head of laboratory*	*Testing engineer*

Having been publicly appointed and generally sworn in as a translator for English by the President of the Leipzig Regional Court, I hereby certify the above translation of the document submitted to me as an original in the German language to be correct and complete.

Leipzig, 18/07/2014

öffentlich bestellte und allgemein beeidigte Übersetzerin für die englische Sprache
Gisela Bothe
Leipzig