



Test Report

No. SL718072210394TX

Date: Apr 24, 2018

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GUSTAV GERSTER GMBH & CO.KG
MEMMINGER STRASSE 18 D-88400 BIBERACH/RISS

The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description : woven fabric:100%polyester in anthracite(sample 3a)
Style No. : 7694 295 0810
Buyer : GUSTAV GERSTER GMBH & CO.KG
Country of Destination : Germany
Supplier : GUSTAV GERSTER GMBH & CO.KG

Test Performed : Selected test(s) as requested by applicant

Sample Receiving Date : Apr 03, 2018

Testing Period : Apr 03, 2018 - Apr 24, 2018

Test Result(s) : Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. For further details, please refer to the following page(s).

Signed for and on behalf of SGS-CSTC
Standards Technical Services Co., Ltd. Ningbo Branch

Allen He (Account Executive)



SGS-CSTC Standards Technical Services Co., Ltd.
Ningbo Branch Textile Laboratory

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Test Result

I. Test conducted***

This test was conducted as per DIN 4102-15:1990 DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2, and Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials.

II. Sample details

General description	Gary Fabric
Color	Gray
Density	About 270 g/m ²
Size of sample	1000mm×190mm & 190mm×90mm

Conditioning

Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2 °C, and a relative humidity of 50 ± 6 %.

III. Test results

1) "Brandschacht" Test according to DIN 4102-15 & 16

Exposed surface: The front face

Results of "Brandschacht" Test (part 1)				
Line No.	Unit	Test assemblies No.		
		Lengthwise	Widthwise	
1	Specimen fixings according to DIN 4102 part 15, table	/	1	1
2	Max. flame height above lower sample edge;	cm	40	40
3	Time ¹⁾	min:s	00:26	00:32
4	<u>Melting/burning through</u> Time ¹⁾	min:s	00:03	00:03
5	<u>Back of specimen</u> Flaming/glowing, Time ¹⁾	min:s	00:05	00:04
6	Discolouring, Time ¹⁾	min:s	00:02	00:02
7	<u>Burning droplets</u> Begin 1)	min:s	00:08	00:09
	<u>Amount</u>	/	/	/
8	Specimen material falling off in separate droplets	/	/	/
9	Specimen material falling off continuously	✓	✓	✓



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Ningbo Branch Textile Laboratory

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Results of "Brandschacht" Test (part 2)			
Line No.	Unit	Test assemblies No.	
		Lengthwise	Widthwise
	<u>Burning parts</u>	No	No
10	Begin 1)	/	/
11	Parts of sample falling off separately	/	/
12	Parts of sample falling off continuously	/	/
13	Duration of continued combustion on mesh base (max.)	No	No
	<u>Burner flame impairment by dripping/falling material</u>	No	No
14	Time ¹⁾	/	/
	<u>Premature ending of test</u>	/	/
15	End of burning at specimen ¹⁾	/	/
16	Time when test terminated (if applicable) ¹⁾	/	/
	<u>Burning after end of test</u>	No	No
17	Duration	/	/
18	Number of specimens	/	/
19	Front of specimen	/	/
20	Back of specimen	/	/
21	Height of flame	/	/
	<u>Glowing after end of test</u>	No	No
22	Duration	/	/
23	Number of specimens	/	/
24	Front of specimen	/	/
25	Back of specimen	/	/
26	Top half of specimen	/	/
27	Bottom half of specimen	/	/



SGS-CSTC Shanghai Textile Testing Co., Ltd.
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Results of "Brandschacht" Test (part 3)					
Line No.	Unit	Test assemblies No.			
		Lengthwise		Widthwise	
	<u>Residual length</u>	/		/	
28	Single results	58	64	57	59
29	Average of the single results	60	62	65	63
		61.0		61.0	
	<u>Smoke temperature</u>	/		/	
30	Max. of average	147.8		145.6	
31	Time ¹⁾	07:25		07:32	

Note: ¹⁾ time from start of testing

*Reduction in number of test (DIN 4102 Part 16, clause 5.2)

Class B1 materials:

If the residual length measured after the first test is 45cm or greater, further tests are not required.

2) Normal Flammability Test according to DIN 4102-1 Clause 6.2

Edge ignition

Fire application time: 15s

Parameter	Lengthwise					Crosswise				
	1	2	3	4	5	6	7	8	9	10
Whether or not flaming extinguished before reach the gauge mark(Yes/No)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Whether or not flaming reach the measuring mark within 20 seconds(Yes/No)	No	No	No	No	No	No	No	No	No	No
Time for the flame tip to reach the gauge mark(s)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Afterflame time (s)	12	10	8	13	12	0	0	0	0	0
Max. flame height (cm)	14	13	13	14	13	5	6	5	6	6
Molten dripping(Yes/No)	No	No	No	No	No	No	No	No	No	No
Smoke developments (visual impression)	Medium					Slight				

Note:

NA---Not applicable



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IV. DIN 4102-1:1998 Criteria for classification

- 1) All materials, except flooring, may be classed as **B1** materials if they meet the following requirements a) and b):
 - a) The test using the 'Brandschacht' apparatus described in DIN 4102-15 (cf. subclause 6.1.3.1) shall be deemed passed if
 - The mean value for the residual length (portion of specimen that has not burned or charred; cf. subclause 9.1 of DIN 4102-16) of each specimen is at least 15 cm and no individual values are lower than 0 cm,
 - The mean effluent temperature does not exceed 200 °C in any test,
 - The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.
 - b) Pass DIN 4102-1: 1998 sub-clause 6.2.3 Ignitability Test if
 - For each specimen, flaming doesn't reach the gage mark within 20s after flame application.
- 2) Materials may be classed as **B2** materials if they pass the ignitability test specified in DIN 4102-1: 1998 subclause 6.2.5.
 - For each specimen, flaming doesn't reach the gage mark (150mm marks) within 20s after flame application.
- 3) Combustible materials which cannot be classed as B1 or B2 materials shall be classed as **B3** materials.

STATEMENTS:

This test report does not replace any mandatory certification of the product that may be required.
 The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

Classification: The tested sample **meets** class **B1** building materials requirements of DIN 4102-1 (May 1998).

***** This test was carried out by SGS-CSTC ANJI – FTS Laboratory**

*** End of Report ***



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