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Exova Warringtonfire, Frankfurt is an IMO-listed fire testing laboratory and acknowledged as such by the Federal Republic of Germany

Test report

Nr. 2015-1932

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Applicant SIMONA AG
Teichweg 16

D-55606 Kirn

Date of order 13.02.2015
Date of sampling No official sampling by a representative of the Exova Warringtonfire, Frankfurt
Date of arrival 13.02.2015
Date of test 18.02.2015
Test number: 2015-1209

Order

Testing of the burning behavior for detecting the flammability according to Resolution MSC.307(88), FTP Code 2010, Annex 1, Part 5.

Description / designation of the test object

SIMONA SIMOWOOD IMO MADE OF RESYSTA

Description of the relevant test procedure

IMO FTPC Teil 5 of flame resistance

1. Description of the specimen material

1.1 Details of the customer:

Material description: SIMONA SIMOWOOD IMO MADE OF RESYSTA

Panel thickness: 4 mm to 8 mm

Intended usage area: Top layer of ship decks, wall coverings

1.2 By the Exova Warringtonfire, Frankfurt determined values:

Panel material

Specimen No.	Material	Colour	Total thickness	Total surface weight
1	SIMONA SIMOWOOD	brown	4 mm	6,22 kg/m ²
2	SIMONA SIMOWOOD	brown	8 mm	11,70 kg/m ²
3	SIMONA SIMOWOOD	brown	8 mm	12,01 kg/m ²
4	SIMONA SIMOWOOD	brown	8 mm	12,22 kg/m ²

Test arrangement: smooth surface to the radiator

Testing after clima storing (23°C / 50 % relative humidity) up to a constant humidity level.

Specimen fixing/-backing: The sample became according to the defaults in aluminium foil fitted out and supported with non-combustible backing board (thickness 12,5±3 mm density: 950±100 kg/m³).

Ignition source: Pilot flame on specimen (impinging mode)

2.1 Test results

test arrangement: vertical

Speciem No.		1	2	3	4	5
Material thickness:	[mm]	4	8	8	8	
Measureing results:						
Ignition after	[s]	10	15	10	10	
Reaching the 50 mm station after	[s]	10	15	10	10	
Reaching the 100 mm station after	[s]	-	-	-	-	
Reaching the 150 mm station after	[s]	-	-	-	-	
Reaching the 200 mm station after	[s]	-	-	-	-	
Reaching the 250 mm station after	[s]	-	-	-	-	
Reaching the 300 mm station after	[s]	-	-	-	-	
Reaching the 350 mm station after	[s]	-	-	-	-	
Reaching the 400 mm station after	[s]	-	-	-	-	
Reaching the 450 mm station after	[s]	-	-	-	-	
Reaching the 500 mm station after	[s]	-	-	-	-	
Reaching the 550 mm station after	[s]	-	-	-	-	
Flames extinguish after	[s]	90	300	330	270	
Final spread of flame up to	[mm]	50	80	80	80	
Total duration of the test	[s]	270	480	510	450	
Specimen drips off / pieces fall off	No burning after	[s]	180	240	220	180
	Burning after	[s]	-	-	-	-
Smoke generation after	[s]	5	5	5	5	
Charring / discolouring / cracking after	[s]	5	5	5	5	
Charring / discolouring / cracking up to	[mm]	380	420	420	420	
Further remarks	none					

2.2 Test results

Specimen No.	Q_i MJ/m ²	Q_{sb} MJ/m ²	CFE kW/m ²	Q_t MJ	q_p kW
1	n.d.	n.d.	50,5	0,030	0,2
2	n.d.	n.d.	50,0	0,102	0,3
3	n.d.	n.d.	50,0	0,108	0,4
4	n.d.	n.d.	50,0	0,120	0,4
5					
Average 2-4	n.d.	n.d.	50,0	0,110	0,37

n.d. = according MSC.61(67), FTP Code, Annex 1, Part 5 not determinable, because 150 mm – mark and 175 mm position not reached; also no sustained burning detected!

3.1 Surface flammability criteria:

A material is flame retardant be classified or meets the requirements for a low flame spread when the mean of the test results the following limit values, see table below does not exceed:

Typ of material	Q_{sb} MJ/m ²	CFE kW/m ²	Q_t MJ	q_p kW
Limits for bulkhead, wall and ceiling linings	≥ 1,5	≥ 20,0	≤ 0,7	≤ 4,0
Limits for floor coverings	≥ 0,25	≥ 7,0	≤ 2,0	≤ 10,0

for bulkhead, wall and ceiling linings no burning droplets and parts allowed
for floor coverings max. 10 burning droplets and parts allowed

Q_{sb} = Heat for sustained burning

CFE = Critical flux at extinguishment

Q_t = Total heat release

q_p = Peak heat release rate

Q_i = Ignition Heat

3.2 Classification:

The material described in chapter 1 fulfils the requirements according to Resolution MSC.307(88), FTP Code 2010, Annex 1, Part 5, for the flammability

For use as a material for bulkhead, wall and ceiling linings and floor coverings in ship construction

In accordance with IMO FTPC, Annex 2, 2.2 in general surface materials and primary deck coverings with both the total heat release $Q_t < 0,2$ MJ and the peak heat release rate $q_p < 1,0$ kW (in accordance with part 5, annex 1) are considered to comply with the requirements of part 2, annex 1 without further testing.

On the basis of the test results a test according to FTP code 2010, annex 1, part 2 is not required.

4. Remark:

The fire test result is valid only for the material described in chapter 1, in the tested thicknesses 4 and 8 mm, the tested colour as well as for colours with same or a lower organic content, on all non- combustible substrates.

According to the experience of the testing laboratory the test result including also in between lying thicknesses.

The test results relate only the behaviour of the test specimen of a product under the particular conditions of the test. They are not intended to be the only criterion that can cause potential fire hazards of the product in use.

Frankfurt, 2th September 2015

A handwritten signature in black ink, appearing to be "P. Scheinkönig".

P. Scheinkönig
Tester in Charge

A handwritten signature in black ink, appearing to be "T. Zachäus".

Dipl.-Ing. T. Zachäus
Laboratory supervisor

The results of the tests relate only to the behaviour of the test sample which is designated on the top.
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This test report is a translation of the German version 2015-1932 (issued 02.09.2015). In case of doubt only the German version is valid

This test report contains 5 pages and 1 annex.

Appearance of the specimen during and after the test

