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Testing, Inspection and Certification Authority for Construction Products and Construction Types
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Leipzig Institute for Materials Research and Testing Business Division III: Structural Fire Protection

MFPA Leipzig GmbH – P.O. Box 74 11 06 – 04323 Leipzig / Germany

Ongropack KFT.
Attn. Ms Eva Kun
Bolyat Ter 1.
3704 Kazincbarcika
Hungary

Your reference	Your message from	Our reference	Date
Ongropack / Ms Kun		P3.1/15-345	12 November 2015

Test results of reaction-to-fire testing in accordance with DIN 4102-1 with the product “Ongrofoam free”

Dear Ms. Kun,

Thank you for testing the reaction to fire behavior of your product “Ongrofoam free” together with the MFPA Leipzig GmbH. In reference to your E-mail from 19th October 2015, we would like to inform you about the test results of your product.


We are glad to inform you that your product did pass the burning tests according to DIN 4102-1, which are a necessary requirement for the B1 classification.

Below we send you a summary of the B1 test results.

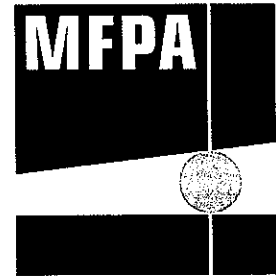
This document is just a summary of the testing results and do not included a legal verification of applicability.

General terms and conditions of MFPA Leipzig GmbH are valid.

Sincerely yours,



C. Schmöche, M.Sc.
Testing Engineer



Gesellschaft für
Materialforschung und
Prüfungsanstalt für das
Bauwesen Leipzig mbH

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accredited inspection body. DIN EN ISO/IEC 17065
accredited certification body. The accreditation only applies
to the methods listed in the certificate (in this document
marked with *) which can be seen on www.mfpa-leipzig.de

Product description

According to the client, the product "ONGROFOAM free foamed PVC sheet" has the following parameters.

Product name	Thickness	Density	Color	Material	Application
ONGROFOAM free	3 mm	500 kg/m ³	white	foamed PVC sheet	Space dividers of Buildings, advertising industry, interior design of exhibition

Testing

The test was carried out according to DIN 4102 Part 1 (May 1998 issue), DIN 4102 Part 15 (May 1990 issue) and DIN 4102 Part 16 (May 1998 issue). The test was carried out with materials having a density of 568 kg/m³. The test with the above materials was carried out in the fire shaft according to DIN 4102 Part 1, Section 6.1.2.2 with the samples in freely suspended arrangement in processing and cross processing direction.

Test results

Table 1: Test results of the fire shaft test,
Specimen A: Material with a weight per unit area of approx. 504 kg/m², samples from longitudinal direction,
Specimen B: Material with a weight per unit area of approx. 504 kg/m², samples from longitudinal direction,
Specimen C: Material with a weight per unit area of approx. 504 kg/m², samples from longitudinal direction,

Data according to DIN 4102-16		Measuring values for specimen				
		A	B	C	-	-
No. of sample arrangement acc. to DIN 4102 Part 15, Table 1		6	6	6	-	-
Maximum flame height above bottom edge of sample	cm	70	70	80	-	-
	Time*)	0:45	0:20	2:30	-	-
Melting through/burning through	min:s	0:55	0:43	1:04	-	-
Burning dropping/dripping down sample parts Beginning*)	min:s	2:30	2:00	2:10	-	-
	Period of continued burning at screen plate (max.)	min:s	2:04	1:35	3:05	-
Smoke density	%min	365	242	315	-	-
After-burning at end of test	min:s	./.	-	-	-	-
After-glowing at end of test	min:s	./.	-	-	-	-
Residual lengths Individual values	cm	39; 29, 39; 33	36; 40, 40; 41	34; 31, 23; 36	-	-
	Mean value	cm	35	39	31	-
Flue gas temperature Maximum of mean value	°C	113	118	124	-	-
	Time*)	min:s	6:38	3:18	3:44	-
Remarks:						
- Burning dropping /dripping down occur						

*) Time from beginning of test
./. Event did not occur
- No information

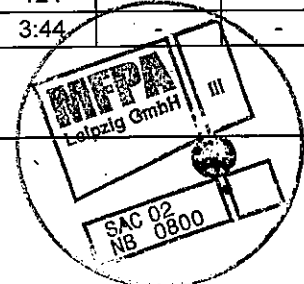


Tabelle 2: Test in fire box according to DIN 4102 parts 1, Section 6.2.5.2 (edge flaming) and Section 6.2.5.3 (surface flaming)

"ONGROFOAM free foamed PVC sheet", color weiß;

Thickness approx. 3 mm, Density approx. 504 kg/m³, freely suspended sample arrangement;

Samples 1, 3 and 5: samples from longitudinal direction, Edge flaming
 Samples 2, 4 and 6: samples from cross longitudinal direction, Edge flaming
 Sample 7: samples from longitudinal direction, surface flaming
 Sample 8: samples from cross longitudinal direction, surface flaming
 Samples 1, 2, 4 and 7: Flaming of the front site,
 Samples 3, 5, 6 and 8: Flaming of the back site;

Data acc. to DIN 4102 Part1		Tests results							
		Sample No..							
		1	2	3	4	5	6	7	8
Inflammation	s	1	1	1	1	1	1	4	2
Max. flame height	mm	40	50	40	40	40	50	30	40
Time of occurrence	s	15	15	15	15	15	15	15	15
Flame peak at measuring mark	s	./.	./.	./.	./.	./.	./.	./.	./.
Extinguishing of flame prior to reaching the measuring mark	s	15	15	15	15	15	15	15	15
Continued burning after end of test	s	./.	./.	./.	./.	./.	./.	./.	./.
Ignition of filter paper	s	./.	./.	./.	./.	./.	./.	./.	./.
Appearance of samples after the fire tests: The samples were damaged at the flaming side at a length of max. 80 mm and at the bottom edge at a width of max. 20 mm. Burning dropping down/ dripping down did not occur. Smoke development (visual): <u>low</u> moderate strong very strong									

The above product can be classified in building class B1 (hardly inflammable) according to DIN 4102 Parts 1 und the following conditions:

- The "ONGROFOAM free foamed PVC sheet" with a density of approx. 504 kg/m³ shall be arranged at a distance of > 40 mm to equal or other flat materials
- The building product dropped burning down
- The product will not be used in outside areas.

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*) Time from beginning of test
 ./ Event did not occur
 - No information