MFPA Leipzig GmbH

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

Leipzig Institute for Materials Research and Testing
Business Division III - Structural Fire Protection
Dr.-Ing. Peter Nause

Work Group 3.1 - Fire Behaviour of Building Products

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This is a translation of test certificate PZ 3.1/13-270-1.

Test Certificate No. PZ 3.1/13-270-1

30 September 2013
No. Copy 1

Client:	EXPAFOL, S.L. Poligono Can Parellada C/ Apolo, 101 08228 TERRASSA Barcelona (Spain)
Subject matter:	Fire testing (normal inflammability, classification of building product B2) according to DIN 4102 part 1*, issued May 1998
Test item:	Flexible clear 500 µm Uv Hat Fire retardant and Flexible clear 650 µm Uv Hat Fire retardant
Date of order:	July 25, 2013
Samples received on:	August 5, 2013 (sample no: DZ 3.1/13-232)
Sampling:	By client
Identification:	None
Date of test:	September 24, 2013
Prepared by:	Nick Neumann, M.Sc.

This document consists of 4 pages.

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

Test laboratory accredited by DAkkS GmbH according to DIN EN ISO/IEC 17025. The accreditation only applies to the test methods listed in the certificate (in this document marked with *) which can be seen on www.mfpa-leipzig.de

Notified testing laboratories, inspection bodies and certification bodies recognized according to the Construction Products Law (NB 800) and the State Building Code (SAC 02).

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

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1 Description on material and its application

According to the client, the products called "Flexible clear 500 µm Uv Ht Fire retardant" and "Flexible clear 650 µm Uv Ht Fire retardant". The products are transparent PVC-foils.

2 Material parameters

Parameters submitted by the client:

Thickness:	500 µm and	650 µm

Parameters determined by MFPA Leipzig GmbH:

Thickness:	500 µm and	650 µm
Area weight:	633.8 g/m² approximately and	830.7 g/m² approximately

3 Preparation of samples

The above materials were cut by employees of the test laboratory to the dimensions required by the DIN 4102 part 1*, issued May 1998 in longitudinal and transverse directions.

4 samples having the following dimension: 190 mm x 90 mm x thickness

4 Testing

Prior to the test, the samples and the filter paper were conditioned according to DIN 50014-23/50-2.

The products were tested according to DIN 4102 part 1*, issued May 1998.

The exposure time was 15 s.

All samples were tested free-hanging.

5 Test results

Designation for test setup:

1, 2, 3	Flexible clear 650 µm Uv Ht Fire retardant
4, 5, 6	Flexible clear 500 µm Uv Ht Fire retardant
L	sample tested in longitudinal direction
Q	sample tested in transverse direction

Table 1, Edge exposure

Data acc. to DIN 4102 part 1		Test results Sample no. 1 L	2 Q	3 Q	4 L	5 Q	6 Q
Ignition	s	1	1	1	1	1	1
Max. flame height	mm	60	80	70	60	70	60
Time of occurrence	s	14	15	14	11	15	11
Flame peak at measuring mark	s	./.	./.	./.	./.	./.	./.
Extinguishing of flme prior to reaching measuring mark	s	16	16	16	16	19	16
Sustained burnig after end of test	s	./.	./.	./.	./.	./.	./.
Ignition of filter paper	s	./.	./.	./.	./.	./.	./.

Occurrence oft he sample after fire test:

The samples had a maximum damaged length of 70 mm. The width of damaged area at the lower edges was up to 20 mm.

Burning droplets/ particles did not appear.

Smoke production (visual): low moderate strong very strong

./. event did not occur.

6 Assessment

The test results presented in section 5 show that the building products

Flexible clear 500 µm Uv Hat Fire retardant (area weight: 633.8 g/m²) and
Flexible clear 650 µm Uv Hat Fire retardant (area weight (830.7 g/m²)

fulfill the criteria of class B2 (normal inflammable) when tested with edge exposure.

According to DIN 4102 part 1,6.2.6, the building products do no have burning droplets and/or particles.

The fire behavior may change in connection with other materials.

7 Notes

This test certification is the basis for the required verification of applicability.

This test certification does not substitute the general appraisal certificate. But it is the basis for a general appraisal certificate.

This test certification is not a verification of applicability with regard to the German building regulations (State building regulation/ national building law).

The results of the tests exclusively refer to the described test objects but not to the main unit.

This test certification is valid until September 23, 2018.

In case of doubts, the German text has to be used as reference.

The results of the tests exclusively refer to the described test objects but not to the main unit.

Leipzig, 30 September 2013

MFPA Leipzig GmbH SAC 02 HB 0800

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