

Classification report

No. 2019-1838-K1-1

issued 16.08.2019

Applicant: Polycasa Nischwitz GmbH
Manfred-von-Ardenne-Straße 1
04808 Thallwitz OT Nischwitz

Order: Classification of the burning behaviour according to
DIN EN 13501-1 (2019-05)

Date of order 29.07.2019

Notification number of the test laboratory

NB 1378

Designation of the classified building product

Product name: IMPEX® UVP / IMPEX®

This classification report lays down the classification of the building product above according to the procedures of DIN EN 13501-1.



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This classification report is a translation of the German version 2019-1838-K1-1 (issued 16.08.2019). In case of doubt only the German version is valid.

This classification report contains 6 pages.

1. Description of the material

1.1 Details of the customer:

Product name:	IMPEX® UVP / IMPEX®
<u>Product description:</u>	IMPEX® UVP
Trade name:	IMPEX UVP
Sample material:	flat sheet with both sheet side 50µm uv protection layer made by co-extrusion
Material type:	Raw material: polycarbonate (PC) (Product information are available to the test laboratory)
Production technique:	extrusion + co-extrusion
Total thickness:	1.5 to 6 mm
Area weight 1,5mm:	1.8 kg/m ²
Area weight 6mm:	7.2 kg/m ²
Colour:	clear, transparent
<u>Co-Extrusionlayer:</u>	
Type of surface:	Both sheet sides uv protection layer
Material of the surface:	UV-Compound (Polycarbonat + UV Absorber)
Area weight of the surface:	0,06 kg/m ²
Thickness of the surface:	50µm
Intended end use of product:	Machine cladding, construction sector, architecture, exhibition stands, safety glazing
Surface to be tested:	No specification, both sides are the same

<u>Product description:</u>	IMPEX®
Trade name:	IMPEX
Sample material:	flat solid sheet
Material type:	Raw material: polycarbonate (PC) (Product information are available to the test laboratory)
Production technique:	extrusion
Total thickness:	1.5 to 6 mm
Area weight 1,5mm:	1.8 kg/m ²
Area weight 6mm:	7.2 kg/m ²
Colour:	clear, transparent
<u>Co-Extrusionlayer:</u>	without
Intended end use of product:	Machine cladding, construction sector, architecture, exhibition stands, safety glazing
Surface to be tested:	No specification

1.2 At the specimen preparation from the Warringtonfire Frankfurt GmbH determined values:

Plastic plates.

Sample no.	Material	Colour:	Total thickness: [mm]	Total surface weight: [kg/m ²]
1	IMPEX® UVP / supplier A	transparent	6	6,99
2	IMPEX® UVP / supplier A	transparent	1,5	2,04
3	IMPEX® UVP / supplier B	transparent	6	7,28
4	IMPEX® UVP / supplier C	transparent	6	7,08
5	IMPEX® / supplier A	transparen	6	7,12
6	IMPEX® / supplier B	transparen	6	7,02
7	IMPEX® / supplier C	transparen	6	7,12

Material construction und fixing see pictures below:



picture: edge of the large sample wing



fixing of specimen

1.3 Production and pretreatment of the samples for the tests according to DIN EN 13823

The material was delivered by the manufacturer for testing and was provided for the tests in the necessary sample dimensions.

The test was carried out in full.

A 200 mm ventilated cavity was situated between the reverse face of the specimens and the plasterboard substrate in accordance with DIN EN 13823, Point 4.4.10 (calcium silicate, gross density $800 \pm 150 \text{ kg/m}^3$, thickness $12 \pm 3 \text{ mm}$).

The material was tested in a test frame in accordance with DIN EN 16240, Point 5.7 (Fig. 3)

The samples were conditioned to constant mass for more then 48h according to DIN EN 13238.

1.4 Production and pretreatment of the samples for the tests according to DIN EN 11925-2

The material was delivered by the manufacturer for testing and was provided for the tests in the necessary sample dimensions.

The samples were conditioned to constant mass for more then 48h according to DIN EN 13238.

2. Test reports and test results

2.1 Test reports

Name of test laboratory	Customer	Report to form the basis	Test procedure
Warringtonfire, Frankfurt GmbH	Polycasa Nischwitz GmbH	2019-1838-1	DIN EN 13823 (SBI) EN ISO 11925-2 (30s ignition time surface ignition)

2.2 Test results

Test procedures	Parameter / classes	Test results average
DIN EN 13823 (SBI)	FIGRA _{0,2MJ} ≤ 120 [W/s] for class A2 FIGRA _{0,2MJ} ≤ 120 [W/s] for class B	12,58
	FIGRA _{0,4MJ} ≤ 250 [W/s] for class C FIGRA _{0,4MJ} ≤ 750 [W/s] for class D	11,64
	THR _{600s} [MJ] ≤ 7,5 MJ for class A2 THR _{600s} [MJ] ≤ 7,5 MJ for class B THR _{600s} [MJ] ≤ 15 MJ for class C THR _{600s} [MJ] no requirement for class D	1,41
	SMOGRAM-index ≤ 30 [m ² /s ²] für s1 SMOGRAM-index ≤ 180 [m ² /s ²] für s2	3,76
	TSP _{600s} ≤ 50 [m ²] for s1 TSP _{600s} ≤ 200 [m ²] for s2	39,74
	LFS < edge of the specimen for class A2 LFS < edge of the specimen for class B LFS < edge of the specimen for class C	fulfilled
	no burning dripping off/dropping within 600s for class d0	fulfilled
	no burning dripping off/dropping > 10 s within 600s for class d1	-
	burning dripping off/dropping > 10 s within 600s for class d2	-
	DIN EN ISO 11925-2 (surface)	FS ≤ 150 mm within 60 s for class B, C u. D FS ≤ 150 mm within 20 s for class E
no inflammation of the filter paper within 60 s for class d0		fulfilled
inflammation of the filter paper within 60 s for class d2		-

Explanations of table standing to above:

Figra_{0,2MJ}: Heat release rate with consideration of the THR of threshold value of 0,2MJ [W/s]

Figra_{0,4MJ}: Heat release rate with consideration of the THR of threshold value of 0,4MJ[W/s]

THR_{600s}: Total set free warmth during 600s [MJ]

SMOGRAM: Smoke development rate

TSP_{600s}: Total set free smoke quantity during 600s [m²]

LFS: lateral propagation of flames

3 Classification and range of application

3.1 Reference

The classification was carried out according to the chapter 11 of DIN EN 13501-1

3.2 Classification

The tested material is incorporated regarding its behaviour in case of fire into the class **B**. Concerning the smoke development the tested material is incorporated into the class **s1**. Concerning the dripping off behaviour the tested material is incorporated into the class **d0**.

The classification of the tested material reads thus:

B – s1, d0

3.3 Area of application

The classification is only valid for the material described in chapter one, in in the tested colour, surface weight and thickness from 1,5 up to 6 mm, in free standing configuration. The distance to other plane material must be more or equal to 200 mm.

4 Reservation

This classification report replaces not a possible required type admittance or type certification of the product.

This report replaces the classification report 2019-1838-K1 issued 16.07.2019 (date of signature) which is invalid from now on.

Frankfurt 22th August 2019



R. Berger
Tester in charge



P. Scheinkönig
Technical Lab Leader construction product