

Classification report

No. 201012-K1-1

issued 27.04.2021

Applicant: REHAU AG+Co
Otto-Hahn-Straße 2
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Germany

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

Date of order 06.10.2020

Notification number of the test laboratory

NB 1378

Designation of the classified building product

Product name: RAUKANTEX FP

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 201012-K1-1 (issued 27.04.2021). 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: RAUKANTEX FP

Test surface: the samples are identical from both sides, so there are
No front and back

Sample/material description:

Trade name:

Component 1: PFLEIDERER Decoboard Pyroex (carrier board, chip board)

Component 2: HENKEL Technomelt PUR 270/7 (adhesive)

Component 3: RAUKANTEX FP (edge band)

Sample material (e.B. flooring, coating, curtain fabric, etc.):

Component 1: Fire protection chipboard

Component 2: Polyurethane adhesive

Component 3: ABS 789 edge band

Material type (e.B. PES, Epoxi coating, paper wallpaper, etc.):

Component 1: Chipboard

Component 2: Polyurethane

Component 3: ABS 789 (internal also called RAU-ABS789)

Dimensions / Dimensions:

Component 1: 10 - 38 mm Total thickness of the edged component.
The length and width of the components is not relevant.

Component 2: Not applicable to component 2

Component 3: Thickness range from 1.0 to 2.7 mm

Width range from 12 to 43 mm

(necessary supernadoting for the edge of the plates)

Color:

Component 1: red – most critical color according to test report of the carrier board

Component 2: white/natural

Component 3: black (darkest color), white (lightest color),
yellow (colour with highest organic pigment content)

Flame retardant:

Special ABS-blend recipe for edge band materials.

The institute is informed about the exact material recipe.

For composite (e.B. multilayer) materials:

- Component 1: Properties according to the Pfleiderer data sheet
Component 2: Properties according to the Henkel data sheet
(order weight approx. 150-200 g/m²)
Component 3: ABS 789 edge band, depending on the selected version
(color, varnish, décor, thickness, width, etc.)

Planned application area: Application in furniture and building sector. Low inflammable carrier board, edge banded on all sides, for the use in the furniture and construction sector – e.g. furniture fronts, decorative wall and ceiling cladding, surfaces, tabletops, carcasse/cabinet components etc.

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

Coated wood-based panel

Sample No.	Material	Colour:	Width [mm]	Thickness: [mm]	Surface weight [g/m ²]
1	RAUKANTEX decor/color U	black	38	2,7	25,99
2	RAUKANTEX decor/color D	black	38	2,7	25,94
3	RAUKANTEX decor/color L	black	38	2,7	26,68
4	RAUKANTEX decor/color L	white	38	2,7	26,48
5	RAUKANTEX decor/color L	yellow	38	2,7	25,11
6	RAUKANTEX decor/color L	black	38	1,0	24,16
7	RAUKANTEX decor/color L	black	10	2,7	8,48

U = uni, D = décor; L = painted

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

The test was carried out with joint pattern: a longitudinal joint 200 mm from the corner (vertical), a cross joint 500 mm from below (horizontal). Joint width: approx. 5 mm.

A 80 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 samples were conditioned to constant mass for more than 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 prepared for the tests by the laboratory.

The samples were conditioned to constant mass for more than 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	REHAU AG+Co	201012-1	DIN EN 13823 (SBI) EN ISO 11925-2 (30s ignition time surface and edge 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	103,28
	FIGRA _{0,4MJ} ≤ 250 [W/s] for class C FIGRA _{0,4MJ} ≤ 750 [W/s] for class D	100,90
	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	5,14
	SMOGRAM-index ≤ 30 [m ² /s ²] für s1 SMOGRAM-index ≤ 180 [m ² /s ²] für s2	7,49
	TSP _{600s} ≤ 50 [m ³] for s1 TSP _{600s} ≤ 200 [m ³] for s2	83,25
	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 30s	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 [m³]

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 **s2**. Concerning the dripping off behaviour the tested material is incorporated into the class **d0**.

The classification of the tested material reads thus:

B – s2, d0

3.3 Area of application

The classification is only valid for the material described in chapter one, in the tested colours, for thickness range of the chipboard from 10 to 38 mm, thickness range edge strip from 1.0 - 2.7 mm, width range of the edge strip from 12 to 43 mm and surface weights, in a free-standing/free-hanging arrangement.

The distance to other plane material must be ≥ 80 mm.

The classification also includes in-between colours, thicknesses and widths.

4 Reservation

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

This test report replaces the classification report 201012 issued 01.04.2021 (date of signature) which is no longer valid.

Frankfurt 27st April 2021



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