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Classification report
No. 210188-K1

issued 26.03.2021

Applicant: VS Vereinigte Spezialmöbelfabriken GmbH & Co. KG
Hochhäuser Str. 8
D-97941 Tauberbischofsheim

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

Date of order **11.03.2021**

Notification number of the test laboratory

NB 1378

Designation of the classificated building product

Product name: LIGNOdur board

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

DAkkS Deutsche Akkreditierungsstelle D-PL-18354-01-00

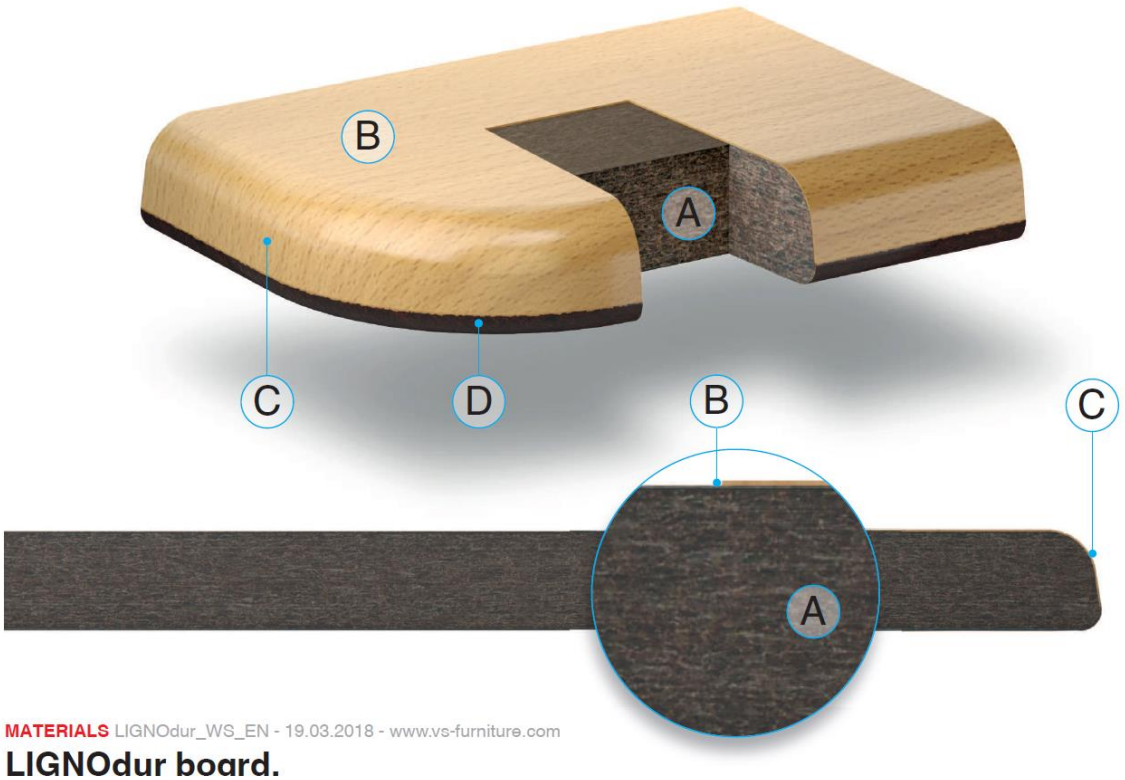
This classification report is a translation of the German version 210188-K1 (issued 26.03.2021). In case of doubt only the German version is valid.
This classification report contains 6 pages.

1. Description of the material

1.1 Details of the customer:

Product name:	LIGNOdur board
Sample/material description:	
Trade name:	LIGNOdur board
Sample material:	tabletop
Material type:	beech wood chips, glue, melamine resin-impregnated decorative paper
Total thickness:	16 mm
Total weight:	1400 kg/m³
Colour:	(028 Maple)
Planned field of application:	school desk

Product description:



MATERIALS LIGNOdur_WS_EN - 19.03.2018 - www.vs-furniture.com

LIGNOdur board.

The **LIGNOdur board** is made from beechwood chips (A) that are pressed together at high force with nothing other than glue using a thermodynamic process patented by VS. Originally, only chips collected at VS as a by-product of manufacturing solid wood furniture were used. Now the chips are bought in.
The surface of LIGNOdur boards is coated with a melamine resin-impregnated decorative paper that is coloured in a single hue or printed to give a wood effect (B). A brown decorative paper is pressed onto the underside (D). The upward-facing finishing coating is pulled around the rounded edges and corners (C) without joins.
LIGNOdur boards are tested in accordance with DIN EN 438-2 and DIN EN 68861.
They meet the requirements of the **"LGA pollutant-tested"** label (comparable to the German "Blue Angel" certification).
Characteristics: The surfaces and edges of LIGNOdur boards are particularly tough, impact-resistant and durable. They meet the most exacting requirements in terms of load resistance and are particularly suitable as heavy-duty students' tables.
Products (examples): Classic, Uno-M, Duo-C, StepByStep, Uno-M-Step.

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

Table board, top wood décor bright, underside dark

Sample No.	Material	Colour:	Thickness: [mm]	Surface weight [kg/m²]	Density [kg/m³]
1	LIGNOdur board top	bright	16	21,99	1374,38
2	LIGNOdur board underside	dark	16	21,77	1360,62
3	LIGNOdur board top	bright	16	21,81	1363,12
4	LIGNOdur board top	bright	16	21,92	1370,00

Test arrangement: bright top or dark underside to the burner

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 large sample wing was made of a tabletop 1500 mm x 600 mm and a section 1500 mm x 400 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 ± 150 kg/m³, thickness 12 ± 3 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 provided for the tests in the necessary sample dimensions and delivered by the manufacturer for testing.

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	VS Vereinigte Spezialmöbelfabriken GmbH & Co. KG	**210188**	**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	**131,13**
	FIGRA $_{0,4MJ}$ ≤ 250 [W/s] for class C FIGRA $_{0,4MJ}$ ≤ 750 [W/s] for class D	**126,23**
	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	**12,57**
	SMOGRA-index ≤ 30 [m²/s²] für s1 SMOGRA-index ≤ 180 [m²/s²] für s2	**2,72**
	TSP $_{600s}$ ≤ 50 [m²] for s1 TSP $_{600s}$ ≤ 200 [m²] for s2	**45,35**
	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	fulfilled
	no inflammation of the filter paper within 60 s for class d0	fullfilled
	inflammation of the filter paper within 60 s for class d2	-

Explanations of table standing to above:
Figra$_{02MJ}$: Heat release rate with consideration of the THR of threshold value of 0,2MJ [W/s]
Figra$_{04MJ}$: 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]
SMOGRA: 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 **C**.
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:

C – s1, d0

3.3 Area of application

The classification is only valid for the material described in chapter one, in the tested colours, thickness and surface weight, in free standing / free hanging configuration.
The distance to other plane material must be ≥ 80 mm.

4 Reservation

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

Frankfurt 26st March 2021

R. Berger / H. Anders
Tester in Charge regulations

P. Scheinkönig
Technical Lab Leader construction product

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