

Reaction to Fire Classification Report

2004-06-16

File No.: PC10035
Serial No.: 9638
Ref.: LIA/DB
Encl.: 0

Merbau parquet flooring, surface impregnated with Jensen SI-29.B

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Denmark





The present classification report supersedes DIFT's classification report dated 2004-06-14 under the above file number

1 SPONSOR

J.P. Hansens Efterfølger ApS
Præstetoften 3
DK-5471 Sønderø
Denmark

2 INTRODUCTION

This classification report defines the classification assigned to the product "Merbau parquet flooring, surface impregnated with Jensen SI-29.B" in accordance with the procedures given in EN 13501-1:2002.

3 DETAILS OF CLASSIFIED PRODUCT

3.1 NATURE AND END USE APPLICATION

The product "Merbau parquet flooring, surface impregnated with Jensen SI-29.B" is defined as a wooden flooring. Its classification is valid for the product that in the end use application is glued onto floors and end use substrates of Euroclasses A1_{fl} and A2_{fl}, cf. 5.3.

3.2 DESCRIPTION

The product "Merbau parquet flooring, surface impregnated with Jensen SI-29.B" is fully described in the test reports in support of the classification listed in 4.1.



4 TEST REPORT AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

4.1 TEST REPORT

Name of laboratory	Name of sponsor	Test report ref. No	Test method	Date of test
DIFT	J.P. Hansens Efterfølger ApS	PF11833b	EN ISO 9239-1 EN ISO 11925-2	2004-06-10 2004-06-11

4.2 TEST RESULTS

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance Parameter
EN ISO 9239-1				
Critical heat flux at extinguishment	(CHF) kW/m ²	4	10.42	(-)
Smoke generation	% X min. (30 min.)	4	15.2	(-)
EN ISO 11925-2				
Surface flame attack, 15 s exposure	F ₃ ≤ 150 mm within 20 s.	6	(-)	Y
(-) not applicable Y "compliant"				

5 CLASSIFICATION AND DIRECT FIELD OF APPLICATION

5.1 REFERENCE AND DIRECT FIELD OF APPLICATION

This classification has been carried out in accordance with clause 11.6 and 11.9 of EN 13501-1:2002.



5.2 CLASSIFICATION

The product "Merbau parquet flooring, surface impregnated with Jensen SI-29.B" in relation to its reaction to fire behaviour is classified: B_{fl}

The additional classification in relation to smoke production is: s1

The reaction to fire classification for the product is: B_{fl}-s1.

5.3 FIELD OF APPLICATION

This classification is valid for the following end use conditions:

- any substrates of Euroclasses A1_{fl} or A2_{fl} at least 6 mm thick and with density equal to or greater than 1350 kg/m³
- with the product glued to the substrate with elastic MS-polymer glue application rate: 0.6 l/m² (wet).

6 LIMITATIONS

This document does not represent type approval or certification of the product.

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Reg.No 12

2004-06-16

File No.: PF11833b

Serial No.: 9637

Ref: LIA/DB

Encl.: 1

Test Report

Merbau parquet flooring, surface impregnated with Jensen SI-29.B

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Danish Institute of Fire and Security Technology



The results relate only to the items tested.
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under the above file number*

1 SPONSOR

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2 PRODUCT

Surface treated Wood flooring.

Description

Merbau parquet flooring (approx. 750 kg/m³) surface impregnated with Jensen SI-29.B; total amount used: approximately 0.25 l/m² in 4 treatments.

3 NAME OF MANUFACTURER

Surface impregnation Jensen SI-29.B: J.P. Hansens Efterfølger ApS, Denmark.

4 PURPOSE OF TEST

By request of the sponsor, the product has been subjected to the test procedures of EN ISO 9239-1 and EN ISO 11925-2.

5 SAMPLE

2004-05-19 the Danish Institute of Fire and Security Technology (DIFT) received the following sample:

6 test specimens, consisting of 15 mm Merbau parquet flooring, surface impregnated with Jensen SI-29.B, glued, with elastic MS-polymer glue (0.6 l/m²), onto 6 mm thick fibre-reinforced cement boards with dimensions 1030 x 230 mm and a density of 1850 kg/m³.



The weight per unit area at 20°C (undried) was 23 kg/m² at the state of receipt as determined by weight and measures of the sample.

Six test specimens for the EN ISO 11925-2 test were prepared from the remaining test specimens.

6 CONDITIONING

2004-05-19 the specimens were stored in a conditioning room with an atmosphere of relative humidity of 50 ± 5% at a temperature of 23 ± 2°. The specimens were kept in this room until the tests were performed.

7 TEST METHODS

The tests were performed in accordance with:

EN ISO 9239-1	Reaction to fire test for floorings - Part 1: Determination of the burning behaviour using a radiant heat source (ISO 9239-1:2002)
EN ISO 11925-2	Reactions to fire test – Ignitability of building products subjected to direct impingement of flame – Part 2: Single-flame source test (ISO 11925-2:2002)

8 TEST RESULT

8.1 ISO 9239-1

Date of test: 2004-06-10.

Four tests were performed. One in the floorings crosswise direction (test 2), and three in length direction (test 1, 3 and 4).

Evaluation shall, cf. EN ISO 9239-1 part 7.2.6, be made from the specimens with the lowest CHF (If extinguished by the operator at 30 min., then the HF-30 value).



The results are shown in the following tables:

Observations: Test No.	1	(2)	3	4
Ignition of floor covering (min: sec.)	2:58	2:53	3:41	3:08
50 mm (min: sec.)	4:25	5:41	5:18	3:29
100 mm (min: sec.)	-	-	8:25	5:53
150 mm (min: sec.)	-	-	10:00	-
200 mm (min: sec.)	-	-	-	-
250 mm (min: sec.)	-	-	-	-
300 mm (min: sec.)	-	-	-	-
350 mm (min: sec.)	-	-	-	-
400 mm (min: sec.)	-	-	-	-
450 mm (min: sec.)	-	-	-	-
500 mm (min: sec.)	-	-	-	-
550 mm (min: sec.)	-	-	-	-
600 mm (min: sec.)	-	-	-	-
End of flaming (min: sec.)	12:06	12:03	12:10	12:01
Spread of flames (max) (mm)	99	75	195	120
Length of damaged area (mm)	110	85	205	130

Observations: Test No.	1	(2)	3	4
Flame spread at 10 min. (mm)	90	50	150	110
Flame spread at 20 min. (mm)	-	-	-	-
Flame spread at 30 min. (mm)	-	-	-	-

Derived fire characteristics: Test No.	1	(2)	3	4	Mean
Heat Flux (HF-X): HF-10 (kW/m ²)	10.97	11.1	10.31	10.81	10.7
HF-20 (kW/m ²)	-	-	-	-	-
HF-30 (kW/m ²)	-	-	-	-	-
Critical heat flux at extinguishment (CHF): (kW/m ²)	≥ 11	≥ 11	9.54	10.71	10.42
Peak smoke generation %	1	1	2	1	1
Smoke generation: % x min.	23.83	8.67	14.17	7.58	15.19

- : Not derived due to end of flaming.
- () : Not used at the evaluation.

Heat Flux-calibration: The graph 1 in enclosure 1 shows the heat flux calibration curve.

Smoke generation: The graphs 2, 3 and 4 in enclosure 1 show the smoke generation.



8.2 ISO 11925-2

Date of test: 2004-06-11

Flame application time: 15 sec.
Test running time: 20 sec.

Surface flame impingement:

Specimen No.	Ignition (yes/no)	Flame spread > 150 mm	Time (sec) to reach 150 mm mark	Ignition of filter paper (yes/no)
1L	no	-	-	no
2L	no	-	-	no
3L	no	-	-	no
4C	no	-	-	no
5C	no	-	-	no
6C	no	-	-	no

L: Lengthwise C: Crosswise

9 COMMENT

These test results relate only to the behaviour of the product under the particular conditions of the test, and they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

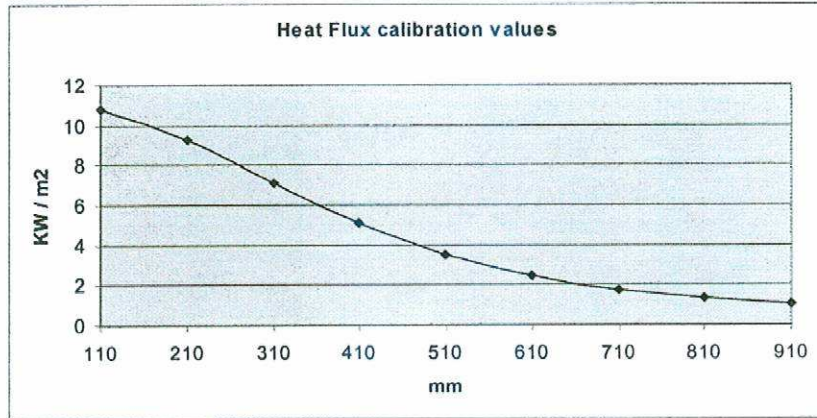
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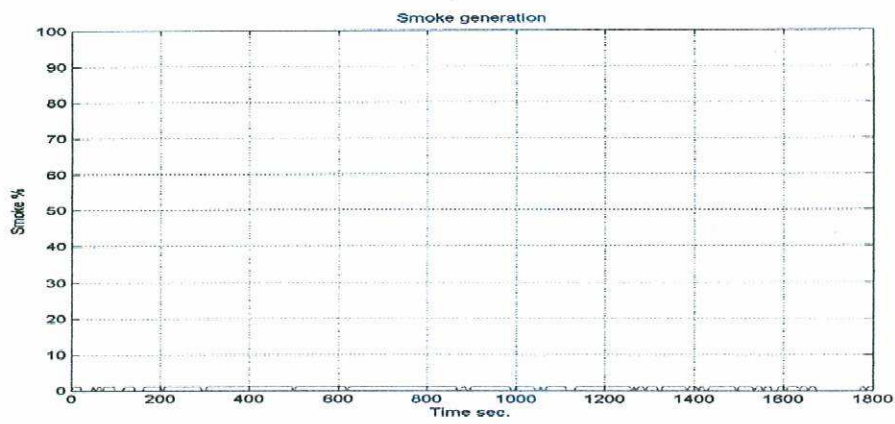
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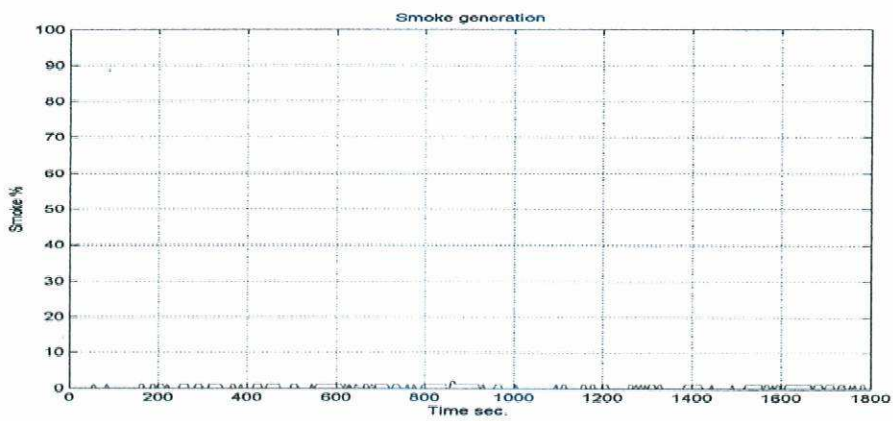
Graph 1



Graph 2



Graph 3



Graph 4

