

TEST REPORT

as a basis for a classification

No. 230006471-1

of 21.07.2008

English version

Sponsor: Dennebos Flooring b.v.
Heesweg 16

NL 8102 HJ Raalte

Date of order: 22. April 2008

Date of sampling: No official sampling by a person responsible of the MPA NRW

Reception of specimen: 23.04.2008

Date of tests: 29.05.2008

Order

Test of the fire behaviour of building products according to DIN EN ISO 9239 – 1

Test of the fire behaviour of building products according to DIN EN ISO 11925 – 2

Description / designation of the test object

Parquet floor covering trade name **"Cattel Landhausdielen"**

This test report is issued additionally to the classification report written in German language with the same report number. This test report is only valid in combination with the test report written in German language. In case of doubt the German version is valid solely.

The test results refer exclusively to the above mentioned test object.

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This test report includes 9 pages.

1 Description of the test material

characteristic		Indications of the sponsor	Values detected at the MPA NRW
1.1	Description	Cattel Landhausdielen	Cattel Landhausdielen
1.2	Kind of covering	Parquet	Parquet
	Total thickness (mm)	Approx. 17,5 and 20,5	On average 17,1 and 19,2
	Total mass per unit area (kg/m ²)	--	On average 11,91 and 12,32
1.3	Kind of covering position	Oak sawn veneer with oil/wax covering	--
	Thickness of overing layer (mm)	Approx. 5,5	On average 5,5
	Quantity of oil wax layer (g/m ²)	Approx. 20	--
	Kind of back pull	Birch Multiplex board	--
	Thickness of back pull (mm)	Approx. 12 and 15	On average 11,6 and 13,7
1.5	Test substrate		Fibre cement board thickness 6 mm, bulk density 1800 kg/m ³

The specimen were conditioned before the test according to DIN EN 13238.

During two working steps the oil/wax layer is put onto the cover layer „oak parquet“. Glueing of covering layer and back pull is made with hot melting PU glue or D3 white glue. A test was made with the material thickness of 17,5mm and a material thickness of 20,5mm. It was detected that the variation with material thickness of 20,5 mm had the longer burning period. Two additional tests were carried out with this material.

2 Test results

2.1 Test according to DIN EN ISO 9239 – 1 (Radiant-Panel-Test)

2.1.1 Points of time, when the flame front reached the 50 mm–measuring points:

Measuring point (mm)	Corresponding radiant flux (kW/m ²)	Time of reaching the measuring point (sec.)			
		specimen 1	specimen 2	specimen 3	specimen 4
50	> 11,00	264	212	185	185
100	> 11,00	326	366	294	274
150	10,20	436	464	535	408
200	9,60	520	615	742	573
250	8,70	644	746	983	742
300	7,60	985	965	1154	960
350	6,50	1287	1154	1423	1350
400	5,40	--	--	--	1676
450	4,50	--	--	--	--
500	3,70	--	--	--	--
550	3,20	--	--	--	--
600	2,70	--	--	--	--
650	2,30	--	--	--	--
700	2,90	--	--	--	--
750	1,70	--	--	--	--
800	1,50	--	--	--	--
850	1,30	--	--	--	--
900	1,20	--	--	--	--
Point of time flame extinction (sec)		1426	1592	1645	--
Highest burning tracking after flame extinction (mm)		390	390	390	410
End of test (sec)		1800	1800	1800	1800

2.1.3 Maximum distance of the flame front from the zero point according to prescribed times

Flamme front (mm)	Max. distance after 10 min (mm)	Heat flux after 10 min. HF 10 (kW/m ²)	max. distance after 20 min (mm)	Heat flux after 20 Min. HF 20 (kW/m ²)	max. distance after 30 min (mm)	Heat flux after 30 Min. HF 30 (kW/m ²)	Critical heat flux CHF (kW/m ²)
specimen 1	240	8,5	340	6,5	390	5,6	5,6
specimen 2	190	9,4	360	6,1	390	5,6	5,6
specimen 3	180	9,6	310	7,1	360	6,1	6,1
specimen 4	210	9,2	330	6,7	410	5,2	5,2
average value of the specimen 2 – 3	193	9,4	333	6,6	387	5,6	5,6

2.1.4 Observations during the test:

specimen 1	No special observations.
specimen 2	No special observations.
specimen 3	No special observations..
specimen 4	No special observations..

2.1.5 Results of the smoke density test

specimen	1	2	3	4	Average value 2 - 4
Smoke density (%*min)	2	1	12	10	8

2.2 Test according to DIN EN ISO 11925 – 2

Kind of flame exposure: Surface exposure

Time of flame exposure: 15 sec

Substrate plate/board: Fiber cement board, thickness 6 mm, gross density 1800 kg/m³

Kind of attachment on the substrate plate/board: --

Specimen no.	1	2	3	4	5	6
Orientation of the specimen in Relation to the production direction	in	in	in	puer	puer	puer
Point of time of ignition after (sec)	--	--	--	--	--	--
Reaching of the measuring point (sec)	--	--	--	--	--	---
Self extinction of the flames after (sec)	--	--	--	--	--	--
Extinguished after (sec)	--	--	--	--	--	--
Highest flame height (cm) 1. sec. - 20. sec	2	2	2	2	2	2
Dimension of burned area H x B (cm)	0 x 0	0 x 0	0 x 0	0 x 0	0 x 0	0 x 0
Smoke development (visual impression)	low					
Flaming particles after (sec)	No	No	No	No	No	No

Further observations during the tests: No special observations.

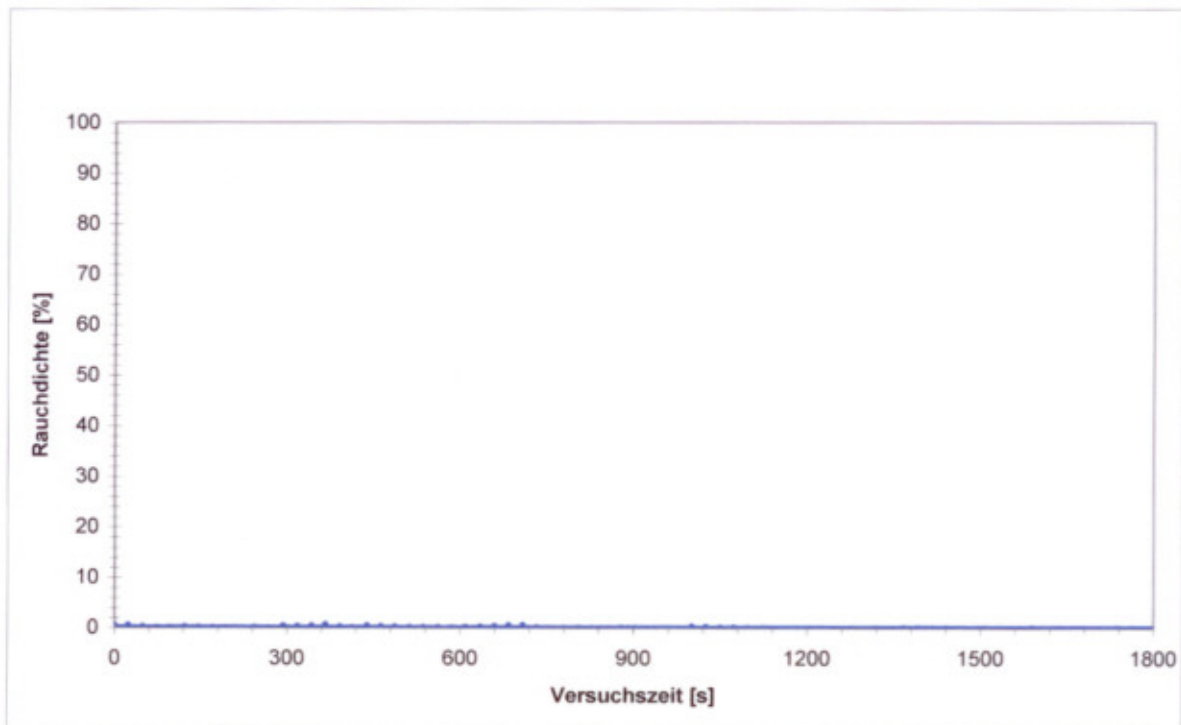


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status of the specimen 5, 6 and 7
after the test

Diagramm of the smoke development

Versuch 2



Versuch 3

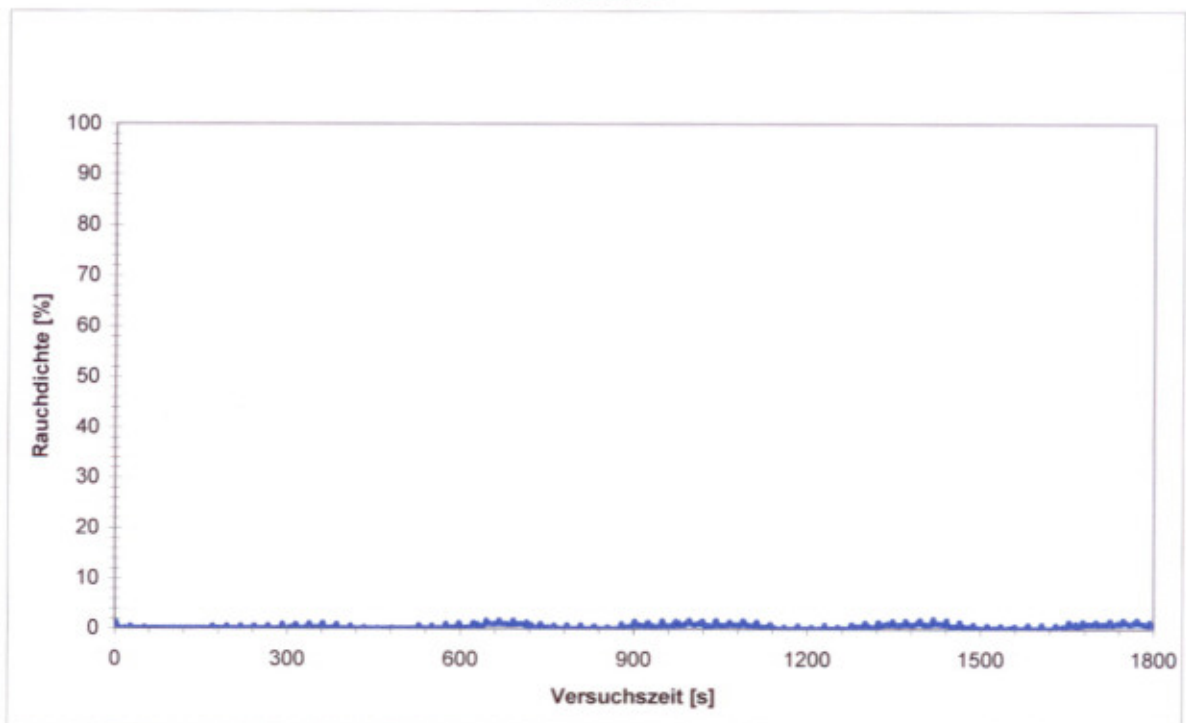
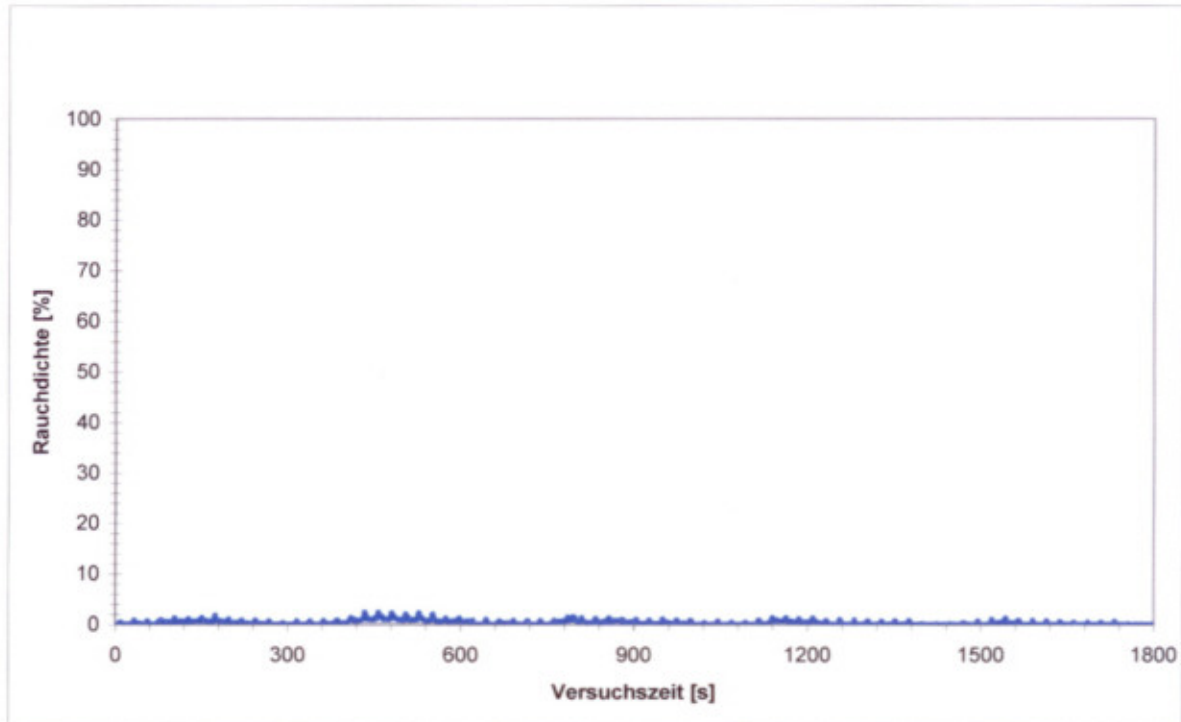


Diagramm of the smoke development

Versuch 4



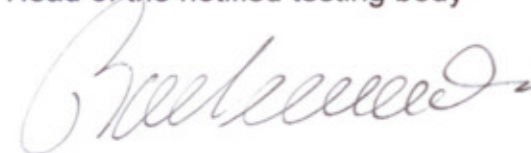
3 Special indication

- 3.1** The test results are only valid for the building material described in paragraph 1 for use as horizontally laid floor covering- stuck or non stuck- on substrate material of the Euroclasses A1 or A2 according to DIN EN 13501-1 with a gross density of at least 1350 kg/m³. Usage in a compound with other building products can have a negative influence on the fire behaviour. The fire behaviour in compound with other material has to be tested separately.
- 3.2** The test results refer to the behaviour of specimen of one building product on special test condition during the test. They are not the only criteria for the evaluation of the potential fire risk of the building product when used.
- 3.3** This test report is a basis for the classification report according to DIN EN 13501-1.

Erwitten, den 21.07.2008

On behalf

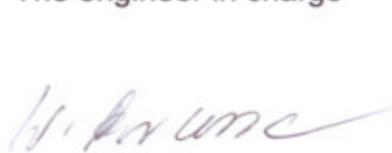
Head of the notified testing body



(Dipl.-Ing. Rademacher)



The engineer in charge



(W. Brune)

Date of issue of this English version: 03 March 2008