DANAK
TEST Reg. No. 12

DBI

Test report

Indicative tests of different surface treatments of oak floorings

Trip Trap Woodcare A/S
Tværvej 6
6640 Lunderskov
Denmark

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INDICATIVE TEST

1 SPONSOR

Trip Trap Woodcare A/S
Tværvej 6
6640 Lunderskov
Denmark

2 PRODUCT

Surface treatments of oak floorings.

Description

21 mm oak boards treated in the following way:

H: Non treated
A: Mester oil
X: Hardwax oil
T: Hardwax oil with flame retardant primer
V: Diamond oil
B: 2K advanced (heavy 3-fic)

The letters indicate the marking by the sponsor.

3 NAME OF MANUFACTURER

Not stated.

4 PURPOSE OF TEST

By request of the Sponsor dated 2014-03-21, the samples for the indicative test has been subjected to the test procedure of EN ISO 9239-1.

5 SAMPLES

2014-04-03 DBI-Danish Institute of Fire and Security Technology received the following samples:

6 samples of each with different markings H, A, X, T, V and B with overall dimensions 510 x 1000 x 21.1 mm mm.

The weight per unit area at 20°C (undried) was between 13 and 15 kg/m^2 at the state of receipt as determined by weight and measures of the sample.

Six test specimens were prepared for the EN ISO 9239-1 test by cutting down the samples to 1000 x 230 mm, no underlay was used

6 CONDITIONING

2014-05-06 the specimens were stored in a conditioning room with an atmosphere of relative humidity of 50 ± 5% at a temperature of 23 ± 2 °C. The specimens were kept in this room until the tests were performed.

7 TEST METHOD

The indicative test was performed as a reduced test 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 9239-1:2010)

8 TEST RESULT

Date of test: 2014-05-07.

The results are shown in the following tables:

Observations: Test No.	**H**	**A**	**X**	**T**	**V**	**B**
Ignition of floor covering (sec.)	142	144	140	147	146	132
60 mm (sec.)	156	162	160	168	180	148
110 mm (sec.)	228	217	234	261	302	200
160 mm (sec.)	298	298	306	353	433	264
210 mm (sec.)	384	397	397	483	576	428
260 mm (sec.)	511	498	513	658	726	589
310 mm (sec.)	723	576	-	870	863	717
360 mm (sec.)	999	688	-	1095	1038	899
410 mm (sec.)	1209	839	-	-	1292	1135
460 mm (sec.)	-	1047	-	-	-	1656
510 mm (sec.)	-	1327	-	-	-	-
560 mm (sec.)	-	-	-	-	-	-
610 mm (sec.)	-	-	-	-	-	-
End of flaming (sec.)	1605	1610	818	1753	1329	1666
Spread of flames (max) (mm)	427	515	309	409	417	461
Length of damaged area (mm)	429	516	312	411	420	467

Observations: Test No.	**H**	**A**	**X**	**T**	**V**	**B**
Flame spread at 10 min. (mm)	280	320	280	250	220	265
Flame spread at 20 min. (mm)	410	490	-	380	400	467
Flame spread at 30 min. (mm)	-	-	-	-	-	-

Derived fire characteristics: Test No.	**H**	**A**	**X**	**T**	**V**	**B**
Heat Flux (**HF-X**):						
HF-10 (kW/m^2)	7.73	6.89	7.73	8.37	9.03	8.04
HF-20 (kW/m^2)	5.05	3.89	-	5.64	5.25	4.18
HF-30 (kW/m^2)	-	-	-	-	-	-
Critical heat flux at extinguishment (**CHF**): (kW/m^2)	4.79	3.58	7.12	5.07	4.94	4.26
Peak smoke generation **%**	28	3	4	31	3	3
Smoke generation: **% x min.**	27	10	20	138	9	11
Indicates possible classification according to EN 13501-1 as	C_{fl}	D_{fl}	C_{fl}	C_{fl}	C_{fl}	D_{fl}

- : Not derived due to end of flaming.

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

Smoke generation: The graphs H, A, X, T, V and B in enclosures 1, 2 and 3 show the smoke generation.

See enclosure 4 for photos of the test specimens.

9 COMMENT

This test report can not be used for classification purposes nor for approval by the authorities.

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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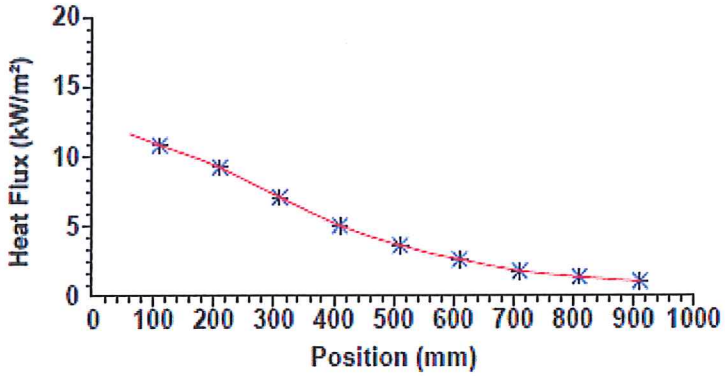
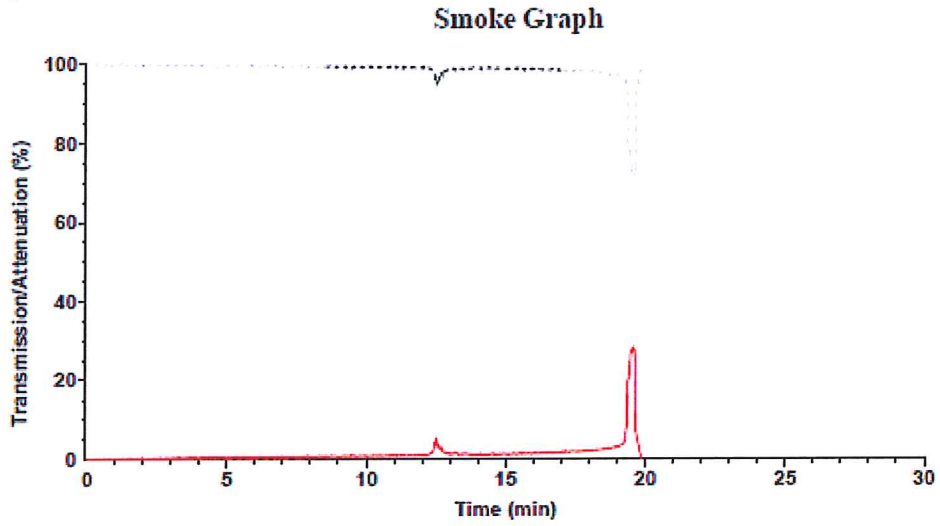
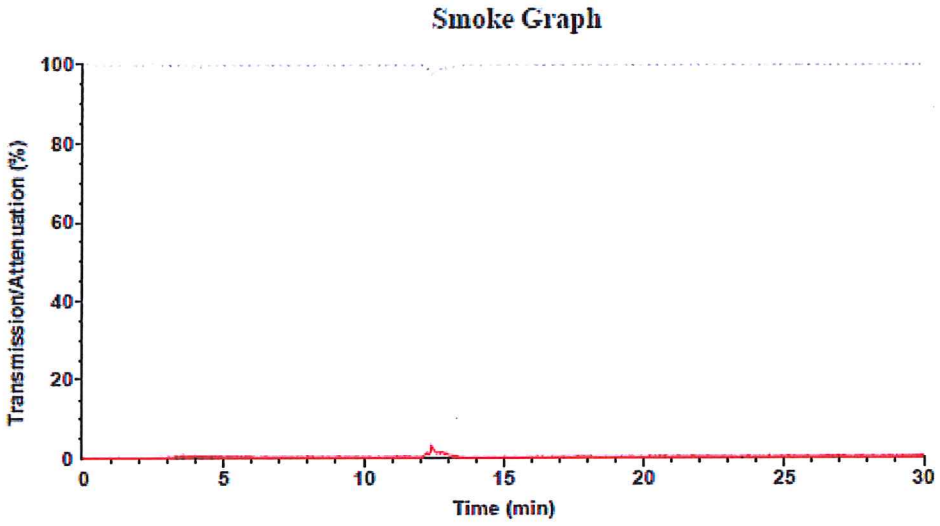
Graph 1



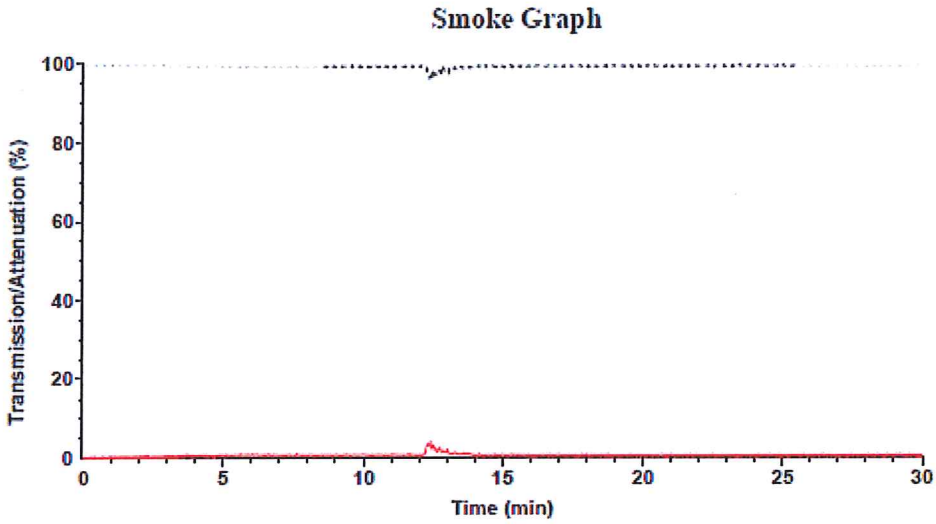
Graph H



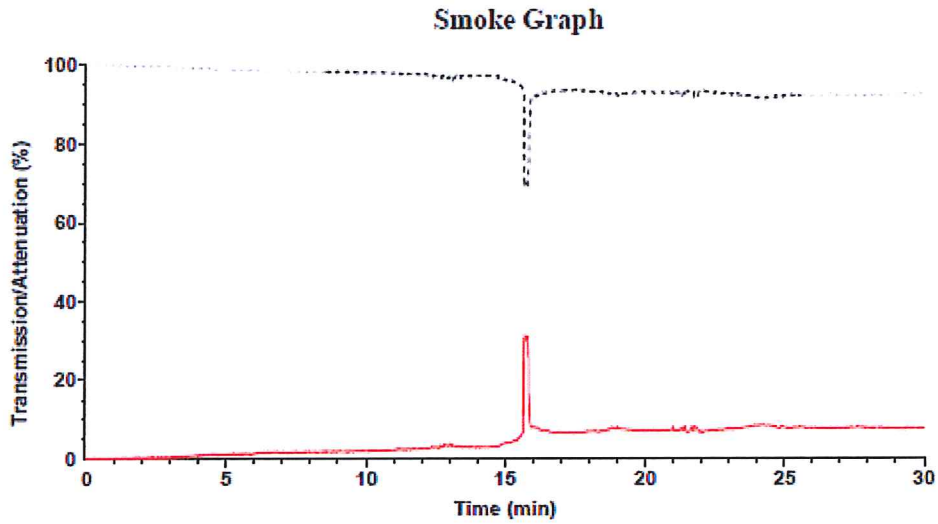
Graph A



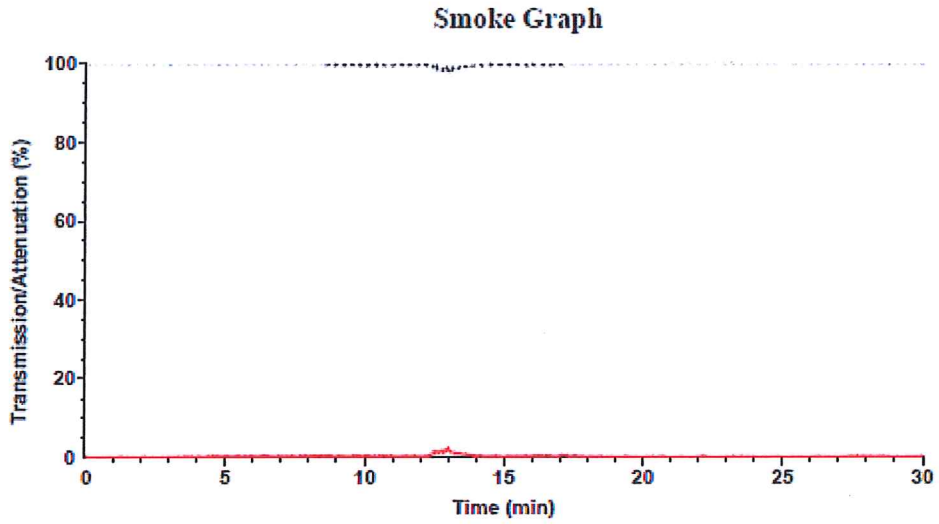
Graph X



Graph T



Graph V



Graph B