

BRE Global Test Report

BS 476-7: 1997 Surface spread of flame test on Treatex Hard Wax Oil on 12mm Valchromat Black engineered coloured wood

Prepared for: Treatex Ltd
Date: 13 October 2016
Report Number: P105013-1000 Issue 1

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1 Objective

To classify the surface spread of flame characteristics of the sample described in Section 2 using the test method and criteria specified in British Standard 476: Part 7: 1997¹.

2 Sample

2.1 Traceability

The test samples were supplied by the test sponsor. BRE Global were not involved in the sample selection process and therefore cannot comment upon the relationship between samples supplied for test and the product supplied to market.

2.2 Description of sample and test format

Unless otherwise stated all measurements are nominal.

Test Sponsor	Treatex Ltd, Unit I, Howland Road Business Park, Howland Road Thame, Oxfordshire, OX9 3GQ
Manufacturer of sample	Not supplied
Sample name/reference	Treatex hard wax oil (Clear Matt) - 007
Sample description (as provided by test sponsor/manufacturer)	Treatex hard wax oil (Clear Matt) 2 coats on 12mm Black (SBL) Valchromat wood fibre panel The client has provided a product description – See Appendix A
Description of sample (as received)	Black coloured fibreboard with treatment applied to one face
Mean sample weight per unit area (kg/m ²)	9.46
Sample thickness (mm)	11.9
Sample receipt date	13 June 2016
Test face	Face with treatment applied
Test format	The specimens were tested with 12mm calcium silicate boards behind.
Date of test	28 June 2016



3 Conditioning

The specimens were conditioned as required by the standard.

4 Results

4.1 Flame spread data

Table 1 shows the observed spread of flame for each specimen at 1.5 minutes, 10 minutes and time to reach maximum flame spread distance.

Table 2 shows the time it takes to reach each reference point in minutes and seconds if applicable.

Table 1

Specimen	Flame spread distance at 1.5 minutes (mm)	Flame spread distance at 10 minutes (mm)	Time to reach maximum flame spread distance (minutes:seconds)
1	75	380	9:50
2	70	410	9:55
3	50	390	9:50
4	75	385	9:10
5	70	385	9:45
6	70	385	9:38

Table 2

Specimen	Time to reach each reference point (mm) in minutes:seconds													
	75	165	190	215	240	265	290	375	455	500	525	600	675	710
1	1:21	2:48	3:07	3:26	3:58	4:32	5:25	9:15	-	-	-	-	-	-
2	2:13	2:50	3:15	3:33	4:02	4:39	5:17	7:37	-	-	-	-	-	-
3	2:16	2:55	3:11	3:36	4:00	4:35	5:47	8:40	-	-	-	-	-	-
4	1:12	2:42	3:03	3:22	3:53	4:24	5:17	8:48	-	-	-	-	-	-
5	1:44	2:46	3:07	3:27	4:04	4:43	5:33	8:54	-	-	-	-	-	-
6	2:15	2:55	3:10	3:37	3:59	4:37	5:14	8:31	-	-	-	-	-	-



4.2 Observations

Specimen	Observations
1	0 minutes 35 seconds: Sustained flaming at pilot flame application point
2	0 minutes 32 seconds: Sustained flaming at pilot flame application point
3	0 minutes 32 seconds: Sustained flaming at pilot flame application point
4	0 minutes 24 seconds: Sustained flaming at pilot flame application point
5	0 minutes 22 seconds: Sustained flaming at pilot flame application point
6	0 minutes 17 seconds: Sustained flaming at pilot flame application point

5 Classification

Exposed surfaces of materials used as linings for walls and ceilings are classified in Section 11 of the standard according to the rate and distance of spread of flame as shown in Table 3.

Table 3

Classification	Spread of flame at 1.5min		Final spread of flame	
	Limit	Limit for one specimen in sample	Limit	Limit for one specimen in sample
	mm	mm	mm	mm
Class 1	165	165 + 25	165	165 + 25
Class 2	215	215 + 25	455	455 + 45
Class 3	265	265 + 25	710	710 + 75
Class 4	Exceeding the limits of Class 3			



6 Conclusion

The results show that the sample described in Section 2 of this report, when tested and classified in accordance with BS 476: Part 7: 1997, achieved Class 2.

7 Validity

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

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over 5 years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

8 Reference

- 1 British Standard 476: Part 7: 1997. Incorporating Corrigendum No 1:2014. Fire tests on building materials and structures. Part 7 Method of test to determine the classification of the surface spread of flame of products. British Standards Institution, London, 1997.



9 Appendix A

Test sponsor		Treatex Ltd
Product name / reference		Treatex hard wax oil matt 007
General description		Wood finish
Name of manufacturer		Note 3
Product assembled / constructed by		Note 3
Overall thickness		Approx. 20 μ
Overall weight per unit area of the sample		Note 1
Colour reference		Clear
Pattern reference		Note 1
Application 1	Product reference	007 matt
	Generic type	Note 1
	Name of manufacturer	Note 1
	Thickness	10 μ
	Weight per unit area	Note 1
	Trade name of flame retardant	Note 1
	Generic type of flame retardant	Note 1
Application 2	Product reference	007 matt
	Generic type	Note 1
	Name of manufacturer	Note 1
	Thickness	10 μ
	Weight per unit area	Note 1
	Trade name of flame retardant	Note 1
	Generic type of flame retardant	Note 1
Brief description of manufacturing process utilised in the production	Amount of flame retardant	Note 1
	Treatex Hard wax oil matt 007 is applied at 30g/m ² to 12mm Black (SBL) Valchromat Engineered coloured wood. Excess is removed to leave approximately 20 μ .	

Note 1: The sponsor of the test has failed to provide the information

Note 2: The sponsor has provided the required information but at the request of the sponsor it has been omitted from the final report

Note 3: The sponsor was unwilling to provide the required information