

TEST REPORT NO. RTE11222/99:E

1 March 1999



T045 (EN45001)

I006 (EN45004)

Determination of the ignitability
of BARRISOL® - interior material

Test method:
IMO Res.A.471 (XII), as amended by res.A.563(14)

Requested by
JULKISKALUSTE SYSTEMS OY

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Order 15 February 1999/ Harri Suoperä

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Task **Determination of ignitability of interior material**

Sample Date of delivery: 15 February 1999

Name: BARRISOL ®

Material: PVC

Square mass: 230 g/m²

Thickness: 0,2 mm

The sample of the tested interior material is presented in Appendix 3.

Date of test 16 February 1999 and 17 February 1999

Test method IMO Resolution A.471(XII), as amended by resolution A.563(14)
Recommendation on test method for determining the resistance to flame of vertically supported textiles and films

The description of the method is presented in Appendix 2.

Results The results are shown in Appendix 1.

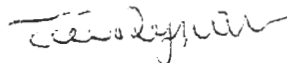
Summary

On the basis of the test results it can be concluded as follows for the tested **BARRISOL®** - interior material

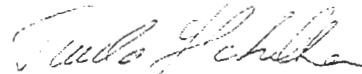
- meets the fire safety requirements for vertically supported textiles and films given by the International Maritime Organization in the Code IMO FTPC Part 7
- meets the requirements of ignitability class SL 1 (difficult to ignite) when classified according to the guidelines given by the Rescue Department of the Ministry of the Interior in Finland (*Fire safety guidelines for furnishings, Series A:56*)

The test results relate only to the items tested.

Espoo, 1 March 1999



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Appendices

- Appendix 1, test results
- Appendix 2, description of the method
- Appendix 3, sample

Distribution

Client	Original (2)
VTT/Archive	Original

TEST RESULTS

Method: IMO Res. A. 471(XII), as amended by Resolution A.563(14)

Sample: **BARRISOL**® - interior material

On the basis of the preliminary tests the ignition mode was selected in two directions (↑ and →).

Ignition mode	Specimen	Afterflame time, s	Damaged length, mm
15 seconds surface ignition	1 ↑	0	90
	2 ↑	0	86
	3 ↑	0	93
	4 ↑	0	75
	5 ↑	0	90
	mean	0	87
15 seconds surface ignition	1 →	0	78
	2 →	0	80
	3 →	0	78
	4 →	0	75
	5 →	0	73
	mean	0	77

The cotton wool beneath the specimens did not ignite in any of the tests, because no burning material dropped from the specimens. No surface flash propagation was observed in any of the tests.

DESCRIPTION OF THE METHOD

IMO Resolution A.471 (XII) as amended by resolution A.563(14) Recommendation on test method for determining the resistance to flame of vertically supported textiles and films (IMO FTPC Part 7)

Test specimens

Specimens sized of 170 mm x 220 mm, cut in both directions of the fabric. If the sides of the fabric are different, both sides shall be tested. Products, which are not inherently flameproof are tested both unwashed and after 10 washings.

Test procedure

Before testing the specimens shall be conditioned at least 24 h (20 ± 5 °C and 65 ± 5 % RH). The test specimen is placed in a vertical metal frame, below which is a cotton wool pad. The test specimen is ignited with a 40 ± 2 mm high propane gas flame. The mode of flame application for warp and weft specimens is chosen on the basis of preliminary tests: 5 s surface ignition, 5 s edge ignition, 15 s surface ignition or 15 s edge ignition. The proper tests are conducted on five test specimens both in the warp and the weft directions. It is observed whether a sustained ignition occurs. Afterflame time and length of char are measured.

Requirements

1. The afterflame time after a surface ignition must not be greater than 5 s in any of the parallel tests (see clause 6).
2. Burn through to any edge after a surface ignition must not occur in any of the parallel tests (see clause 6).
3. The cotton wool must not ignite in any of the parallel tests (see clause 6).
4. The average char length in either direction of the fabric must not exceed 150 mm (see clause 6).
5. A surface flash must not propagate more than 100 mm from the ignition point (see clause 6).
6. A test series shall be repeated if one of the test specimens does not meet the above mentioned requirements 1, 2, 3 and 5. In this second test series all test specimens shall meet the above mentioned requirements.

If the tested fabric meets the above mentioned requirements, it is classified as a curtain of class SL 1 (difficult to ignite) according to instructions given by the Rescue Department of the Ministry of Interior. The instructions are presented in the publication *Instructions for the fire safety of furnishings, Series A:56*.

The ignitability classes SL 2 (normally ignitable) and SL 3 (easily ignitable) are determined in accordance with the standard SFS-EN 1102.

BARRISOL®