REPORT

Issued by an Accredited Testing Laboratory

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Date
2025-09-12

Reference
O100745-1329912

Kvadrat A/S
Lundbergsvej 10
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Danmark

Ignitability of upholstered furniture according to BS 5852:Part 1

(1 appendix)

Introduction

RISE has by request of Kvadrat A/S performed a fire test according to BS 5852:Part 1:1979. The purpose of the test is to form a basis for technical fire classification in accordance with the "No. 1324 Consumer Protection - The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (with amendments), Schedule 4, Part I".

Product

According to the client:

Fabric called "Technicolour".

Material content	Manufacturer	Nominal data
100 % New English wool, worsted	Kvadrat A/S	300 g/m^2

Sampling

The sample was delivered by the manufacturer. It is not known to RISE, Fire and Safety if the product received is representative of the mean production characteristics.

The sample was received on August 28, 2025 at RISE, Fire and Safety.

Test results

The upholstery combination was tested with cigarette (source 0) as ignition source.

The ignition source was applied in a position along the junction between seat and back. Special care was taken to note any progressive smouldering and/or flaming combustion in the combination.

No progressive smouldering and/or flaming occurred within the 60 minute test time (non-ignition). The test results are given in appendix 1.

The test results relate only to the ignitability of the combination of upholstery composites under the particular conditions of the test; they are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

Criteria

Clause 9.2 and 9.3 in BS 5852:Part 1:1979 describing progressive smouldering failure and flaming failure.

"No. 1324 Consumer Protection - The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (with amendments)", Schedule 4, Part I (Based on BS 5852:Part 1:1979).

Assessment

The tested furniture upholstery combination meets the technical fire requirements according to BS 5852:Part 1:1979.

The tested furniture upholstery combination complies with the "No. 1324 Consumer Protection - The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (with amendments), Schedule 4, Part I".

Deviation from standard

The test was performed on a test rig according to EN 1021-1:2006. This test rig is identical to the test rig in BS 5852-1 except for an extra plate at the end of the outer parts of the back and seat. This helps the filling from slipping and improves the repeatability of the test standard. This deviation was considered as having no influence on the test results (except for the better).

Note

The accreditation referred to is valid for BS 5852:Part 1:1979.

The end-use combination of materials was not tested.

RISE Research Institutes of Sweden AB
Fire and safety - Fire dynamics

Performed by

Katarina Krnjic

Examined by

Anna Bergstrand

Appendix

1. Test results – BS 5852:Part 1:1979

Appendix 1

Test results – BS 5852:Part 1:1979

Product

According to the client:

Fabric called “Technicolour”.

Material content	Manufacturer	Nominal data
100 % New English wool, worsted	Kvadrat A/S	300 g/m^2

Test set-up

The fabric was tested together with the standard non-treated polyurethane filling with nominal density 20-22 kg/m^3 described in Schedule 5, part I in the Regulations. According to the standard, the foam filling was tested with thickness 75 mm.

Observations, cigarette test (ignition source 0)

Table 1. Observations during the cigarette tests

Test no	1	2
The cigarette was applied in a position along the junction between seat and back, min:s	00:00	00:00
The test specimen ignited, min:s	-*	-*
The cigarette died out, min:s	25:09	20:47
The test was finished, min:s	60:00	60:00

* Ignition/Flaming ignition of the materials was not observed.

Observations after the fire test, cigarette (ignition source 0)

No progressive smouldering and/or flaming occurred within the 60 minute test time (non-ignition).

Conditioning

The tested product was conditioned for a minimum of 24 h at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) %.

Date of test

September 9, 2025.

Verification

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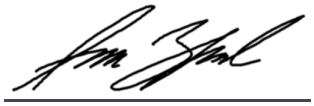

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Date
2025-09-12

Reference
O100745-1329912-1

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8400 Ebeltoft
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Ignitability of upholstered furniture according to BS 5852:Part 1

(1 appendix)

Introduction

RISE has by request of Kvadrat A/S performed a fire test according to BS 5852:Part 1:1979. The purpose of the test is to form a basis for technical fire classification in accordance with the "No. 1324 Consumer Protection - The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (with amendments), Schedule 5, Part I".

Product

According to the client:

Fabric called "Technicolour".

Material content	Manufacturer	Nominal data
100 % New English wool, worsted	Kvadrat A/S	300 g/m^2

Sampling

The sample was delivered by the manufacturer. It is not known to RISE, Fire and Safety if the product received is representative of the mean production characteristics.

The sample was received on August 28, 2025 at RISE, Fire and Safety.

Test results

The upholstery combination was tested with a match flame as ignition source.

The ignition source was applied in a position along the junction between seat and back. Special care was taken to note any progressive smouldering and/or flaming combustion in the combination.

No progressive smouldering and/or flaming occurred within the 60 minute test time (non-ignition). The test results are given in appendix 1.

The test results relate only to the ignitability of the combination of upholstery composites under the particular conditions of the test; they are not intended as a means of assessing the full potential fire hazard of the materials or products in use.

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Testing
ISO/IEC 17025

Criteria

Clause 9.2 and 9.3 in BS 5852:Part 1:1979 describing progressive smouldering failure and flaming failure.

"No. 1324 Consumer Protection - The Furniture and Furnishings (Fire) (Safety) Regulations 1988 (with amendments)", Schedule 5, Part I (Based on BS 5852:Part 1:1979).

Assessment

The tested furniture upholstery combination meets the technical fire requirements according to BS 5852:Part 1:1979.

Deviation from standard

The test was performed on a test rig according to EN 1021-1:2006. This test rig is identical to the test rig in BS 5852-1 except for an extra plate at the end of the outer parts of the back and seat. This helps the filling from slipping and improves the repeatability of the test standard. This deviation was considered as having no influence on the test results (except for the better).

Note

The accreditation referred to is valid for BS 5852:Part 1:1979.

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Fire and safety - Fire dynamics

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1. Test results – BS 5852:Part 1:1979

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100 % New English wool, worsted	Kvadrat A/S	300 g/m^2

Test set-up

The fabric was tested together with the standard non-treated polyurethane filling with nominal density 20-22 kg/m^3 described in Schedule 5, part I in the Regulations. According to the standard, the foam filling was tested with thickness 75 mm.

Observations, gas flame test (ignition source 1)

Table 1. Observations during the gas flame tests.

Test no	1	2
The ignition source was applied in a position along the junction between seat and back, min:s	00:00	00:00
The test specimen ignited, min:s	00:15	00:13
The ignition source was removed, min:s	00:20	00:20
Flames in the test specimen died out, min:s	00:23	00:21
The test was finished, min:s	30:00	30:00

* Ignition/Flaming ignition of the materials was not observed.

Observations after the fire test, match flame test (ignition source 1)

No progressive smouldering and/or flaming occurred within the 60 minute test time (non-ignition).

Conditioning

The tested product was conditioned for a minimum of 24 h at a temperature of (23 ± 2) °C and a relative humidity of (50 ± 5) %.

Date of test

September 9, 2025.

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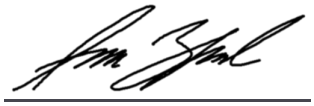

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