



REPORT

issued by an Accredited Laboratory



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English version

Ignitability of upholstered furniture according to BS 5852 (2 enclosures)

Product

Upholstery filling materials for furniture called "R2002" and "S2002", consisting of flame retardant treated flexible polyurethane foam. The products have a nominal density of 55 - 60 kg/m³.

Manufacturer

Carpenter Sweden AB, Svedala, Sweden.

Purpose of test

Basis for technical fire classification.

Sampling

The samples were delivered by the client. It is not known to SP, Fire Technology if the products received are representative of the mean production characteristics.

The samples were received January 16, 2002 at SP, Fire Technology.

Test results

The product was tested in combination with a flame retardant treated polyester fabric specified in "1988 no. 1324 Consumer Protection, The Furniture and Furnishings (Fire) (Safty) Regulations 1988, Schedule 1, part 1".

The combination was tested with crib 5 (BS 5852) as ignition source.

The ignition sources were 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 combinations.

The test results are given in enclosure 1 - 2.

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

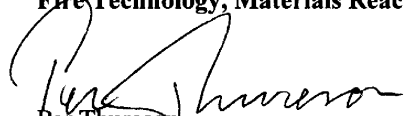
Criteria

Section 11 in BS 5852:1990 describing "Criteria of ignition" with regards to "Progressive smouldering ignition" and "Flaming ignition".

Assessment

The tested furniture upholstery combinations meet the technical fire requirements according to BS 5852:1990 and would be designated "section 4 NI/5".

SP Sveriges Provnings- och Forskningsinstitut
Fire Technology, Materials Reaction to Fire


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Enclosures

- 1 Test results "R2002"
- 2 Test results "S2002"

This is a translation from the Swedish original document. In the event of any dispute as to the content of the document, the Swedish text shall take precedence.



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Enclosure 1

Test results – BS 5852:1990, section 4

Product

Filling materials for furniture called “R2002”, consisting of flame retardant treated flexible polyurethan foam. The product has a nominal density of 55 - 60 kg/m³.

Ignition source

Crib 5

Observations

	Test no 1	Test no 2
The crib was ignited, min:s	00:00	00:00
Cover melted, min:s	00:14	00:14
Cover ignited, min:s	NI*	NI*
Filling ignited, min:s	02:25	NI*
Flames in the cover died out, min:s	-	-
Flames in the filling died out, min:s	02:38	-
Smoke pillar was observed, min:s	-	-
The glow was extinguished, min:s	-	-
The test was finished, min:s	60:00	60:00

*NI = Ignition of the materials was not observed.



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Enclosure

Observations after the fire test

Damage of cover material and filling measured from the edge of the crib as given below.

		Cover, l/h x w (mm)	Filling, l/h x w x d (mm)
Test no 1	Back	400* x 41	335 x 51 x 52
	Seat	25 x 36	32 x 36 x 44
Test no 2	Back	394 x 35	382 x 34 x 49
	Seat	25 x 32	30 x 46 x 68

*The whole way up to the edge.

Measured data

Thickness, foam 74,4 – 76,4 mm.

Density, foam 53 – 55 kg/m³.

Conditioning

Temperature (23 ± 2) °C.

Relative humidity (50 ± 5) %.

Date of test

February 4, 2002.



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Test results – BS 5852:1990, section 4

Product

Product

Filling materials for furniture called "S2002", consisting of flame retardant treated flexible polyurethan foam. The product has a nominal density of 55 - 60 kg/m³.

Ignition source

Crib 5

Observations

	Test no 1	Test no 2
The crib was ignited, min:s	00:00	00:00
Cover melted, min:s	00:11	00:09
Cover ignited, min:s	NI*	NI*
Filling ignited, min:s	01:47	01:39
Flames in the cover died out, min:s	-	-
Flames in the filling died out, min:s	03:47	03:06
Smoke pillar was observed, min:s	-	-
The glow was extinguished, min:s	-	-
The test was finished, min:s	60:00	60:00

*NI = Ignition of the materials was not observed.



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Bilaga 2

Observations after the fire test

Damage of cover material and filling measured from the edge of the crib as given below.

		Cover, l/h x w (mm)	Filling, l/h x w x d (mm)
Test no 1	Back	395 x 38	378 x 40 x 66
	Seat	24 x 42	19 x 41 x 64
Test no 2	Back	400* x 52	388 x 48 x 56
	Seat	35 x 46	30 x 46 x 54

* The whole way up to the edge.

Measured data

Thickness, foam 73,6 – 77,0 mm.
Density, foam 57 – 65 kg/m³.

Conditioning

Temperature (23 ± 2) °C.
Relative humidity (50 ± 5) %.

Date of test

February 4, 2002.

