

Burning rate according to SS-ISO 3795

(1 appendix)

Product

Black leather called "Elmonordic". Semi-Aniline leather with nominal thickness 1.3 - 1.5 mm. Lightly pigmented finish, chrome tanned leather from Scandinavian cattle hide.

The product is a single material.

Manufacturer

Elmo Leather Sweden AB, Svenljunga, Sweden.

Purpose of test

Basis for technical fire classification.

Sampling

The leather was delivered by the manufacturer. It is not known to SP Fire Technology if the product received is representative of the mean production characteristics.

The cover material was received on November 9, 2006 at SP Fire Technology.

Test procedure

The numbers of tests were five, as specified in SS-ISO 3795.

Test results

The test results are given in appendix 1.

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.

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Classification criteria

Criteria for "Prevention of fire risks for vehicle cab" as specified in ADR 9.2.4.2.1: "Only material not readily flammable shall be used in the construction of the driver's cab. This requirement will be deemed to be met if, in accordance with the procedure specified in ISO standard 3795-1989, samples of the following cab components have a burn rate not exceeding 100 mm/min: seat cushions, seat backs, safety belts, head lining, opening roofs, arm rests, all trim panels including door, front, rear, and side panels, compartment shelves, head restraints, floor coverings, sun visors, curtains, shades, wheel housing covers, engine compartment covers, mattress covers and any other interior materials, including padding and crash-deployed elements, that are designed to absorb energy on contact by occupants in the event of a crash."

According to FMVSS 302 S4.3 (a) a material shall not have a burning rate of more than 4 inches per minute (102 mm per minute).

According to Directive 95/28/EC, Appendix 1, section 7.2.1, the result of the test shall be considered satisfactory if, taking the worst test results into account, the horizontal burning rate is not more than 100 mm/minute or if the flame extinguishes before reaching the last measuring point.

Internal SCANIA criteria states that material tested in accordance with the procedure specified in ISO 3795-1991 should have a burning rate not exceeding 75 mm/min.

Internal VOLVO criteria states that the material tested in accordance with the procedure specified in ISO 3795-1991 should have a burning rate not exceeding 80 mm/min.

Assessment

The tested samples, of the product called "Elmonordic", meet the technical fire requirements according to criteria mentioned above.

Note

The accreditation referred to in this report is valid for the testing according to SS-ISO 3795 (FMVSS 302).

SP Technical Research Institute of Sweden Fire Technology - Fire Dynamics

A blue ink signature of Per Thureson.

Per Thureson
Technical Manager

A blue ink signature of Ida Larsson.

Ida Larsson
Technical Officer

Appendix

1 Test results

Test results - SS-ISO 3795, 1991

Product

Black leather called "Elmonordic". Semi-Aniline leather with nominal thickness 1.3 - 1.5 mm. Lightly pigmented finish, chrome tanned leather from Scandinavian cattle hide.

The product is a single material.

Observations made during fire test

Test no	1	2	3	4	5
Sample dimension, mm					
length	356	356	356	356	356
width	70	70	70	70	70
Thickness	2	2	2	2	2
Burnt distance, mm	-*	-*	-*	-*	-*
Burning time, s	-*	-*	-*	-*	-*
Burning rate, mm/min	-*	-*	-*	-*	-*

*In all tests the flames died out before reaching the first measuring point.

Conditioning

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

Test conditions

The combustion chamber was placed in a fume cupboard according to standard.

Measured data

Thickness 1.8 - 2.4 mm.
 Area weight 900 - 1000 g/m².

Date of test

December 7, 2006.