

TEST REPORT NO RTE 2022/01

18 June 2001



T045 (EN 45001)

I006 (EN 45004)

Determination of horizontal burning rate of cellular plastic L 30 PS

Test method:
FMVSS 302

Requested by
Suomen Superlon Oy

Requested by Suomen Superlon Oy
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Order Order 12.3.2001/ Tero Kortelainen

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Task **Determination of horizontal burning rate of cellular plastic**

Sample Date of delivery: 13 March 2001
Quality: flame retarded polyurethane cellular plastic L 30 PS
Manufacturer: Suomen Superlon Oy
Density: $28 \pm 1 \text{ kg/m}^3$ (in accordance with the manufacturer)

Date of the test 19 March 2001

Test method FMVSS 302 (10-1-93 Edition) *Flammability of interior materials - passenger cars, multipurpose passenger vehicles, trucks, and buses.*
The description of the method is presented in Appendix 1.

Results The results are presented in Appendix 2.

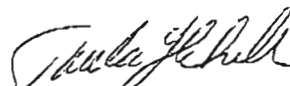
The test results relate only to the items tested.

Summary The tested flame retarded polyurethane cellular plastic L 30 PS meets the fire safety requirements presented in FMVSS 302 (Federal Motor Vehicle Safety Standard, 10-1-93 Edition).

Espoo, 18 June 2001



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Appendices Appendix 1, method description
Appendix 2, results

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TEST RESULTS

Test method: FMVSS 302

Sample: L 30 PS

Test specimen	The burning time along the measuring range, s	The burnt distance within the measuring range, mm	The burning rate, mm/min
1	0	0	0*
2	0	0	0*
3	0	0	0*
4	0	0	0*
5	0	0	0*

* The flames died out before the first measuring point.

DESCRIPTION OF METHOD AND SPECIFICATIONS

TEST METHOD:

DIRECTIVE 95/28/EC of the European Parliament and of the Council of 24 October 1995 relating to the burning behaviour of materials used in the interior construction of certain categories of motor vehicle
ANNEX 4 - Test to determine the horizontal burning rate of materials.

This test method corresponds to the following standards:

ISO 3795 (1989) *Road vehicles, and tractors and machinery for agriculture and forestry - Determination of burning behaviour of interior materials.*

SFS 5337 (1987) *Ajoneuvot. Moottoriajoneuvojen sisusteiden palo-ominaisuudet.*

DIN 75200 (1980) *Bestimmung des Brennverhaltens von Werkstoffen der Kraftfahrzeuginnenausstattung.*

FMVSS 302 (10-1-93 Edition) *Flammability of interior materials - passenger cars, multipurpose passenger vehicles, trucks, and buses.*

Samples

The number of specimens (recommended size 100 mm x 356 mm) is at least five. If the materials have different burning rates in different directions (shown by preliminary tests), the specimens are cut and placed in the test apparatus so that the highest burning rate will be measured. If the thickness of the sample exceeds 13 mm, it will be reduced to 13 mm. Specimens shall be conditioned for at least 24 h but not more than 7 days at a temperature of $23 \pm 2^\circ\text{C}$ and a relative humidity of $50 \pm 5\%$.

Procedure

Each specimen is placed in a horizontal metal sample holder with the exposed side facing downwards. The specimen holder is placed in the combustion chamber where a methane gas flame with a length of 38 mm is directed from below to the free end of the specimen. The distance between the gas nozzle and the underside of the specimen is 19 mm. The flame application time is 15 s. The time of the flame propagation along the measuring range between the outermost pins (254 mm) is measured. In case flames extinguish within the measuring range the burnt distance is also measured. The burning rate is calculated based on the burnt distance and the burning time.

SPECIFICATIONS:

In directive 95/28/EC, Item 7.2.1

The result of the test can be considered satisfactory if, taking the worst test results into account, the horizontal burning rate is not more than 100 mm/min or if the flame extinguishes before reaching the last measuring point.

In FMVSS 302

According to clause S4.3 (a) of the Federal Motor Vehicle Safety Standard (FMVSS) 302 (1-10-93 Edition) the burning rate of a material must not exceed 102 mm/min. In addition a material is considered to meet the burn-rate requirement if it burns less than 60 s and burnt distance is no more than 51 mm.