

AB Ludvig Svensson
Bangatan 8
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Burning rate according to FMVSS 302

(2 appendices)

Introduction

RISE has by request of AB Ludvig Svensson performed a fire test according to FMVSS 302. The purpose of the test is to form a basis for technical fire classification.

Product

According to the client:

Fabric called “Khaki”, consisting of 100 % Trevira CS. The product has a nominal area weight of 360 g/m² and a nominal thickness of 0.8 mm. The colour of the fabric is dark grey no 8800.

Manufacturer

AB Ludvig Svensson, Kinna, Sweden.

Sampling

The sample was delivered by the client. It is not known to RISE Safety – Fire Research if the product received is representative of the mean production characteristics.

The sample was received February 20, 2020 at RISE Safety – Fire Research.

Test procedure

The specimen is mounted horizontally in the test cabinet and is ignited at the edge and from below. The time is measured between certain points to establish the burning rate.

The number of tests were 5 in the most unfavourable direction, as specified in FMVSS 302.

Test results

The test results are given in appendix 1.

Photo of a specimen is shown in appendix 2.

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

According to FMVSS 302 S4.3 (a) a material shall have a burning rate of no more than 4 inches per minute (102 mm per minute).

S4.3 (b) If a material stops burning before it has burned for 60 seconds from the start of timing, and has not burned more than 2 inches from the first measuring point where timing started, it shall be considered to meet the burn rate requirement of S4.3.

Assessment

The fabric called “Khaki” meets the technical fire requirements according to FMVSS 302 S4.3 (a) and S4.3 (b) criteria as the material has a burning rate less than 102 mm/min.

Note

The accreditation referred to in this report is valid for the testing according to FMVSS 302.

**RISE Research Institutes of Sweden AB
Safety - Fire Research Materials**

Performed by

Examined by

Henrik Fredriksson

Per Thureson

Appendices

1. Test results
2. Photograph

Appendix 1

Test results - FMVSS 302:1991

Product

According to the client:

Fabric called “Khaki”, consisting of 100 % Trevira CS. The product has a nominal area weight of 360 g/m² and a nominal thickness of 0.8 mm. The colour of the fabric is dark grey no 8800.

Observations made during fire test

Test no	1	2	3	4	5
Material direction	↑	↑	↑	↑	↑
Sample dimension, mm					
length	356	356	356	356	356
width	100	100	100	100	100
thickness	0.9	0.9	0.9	0.9	0.9
Burnt distance, mm	0	0	0	0	0
Burning time, s	0	0	0	0	0
Burning rate, mm/min	0	0	0	0	0

Note

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 0.9 mm approximately.

Area weight 365 – 367 g/m².

Operator

Daniel Andersson

Date of test

March 5, 2020.

Appendix 2

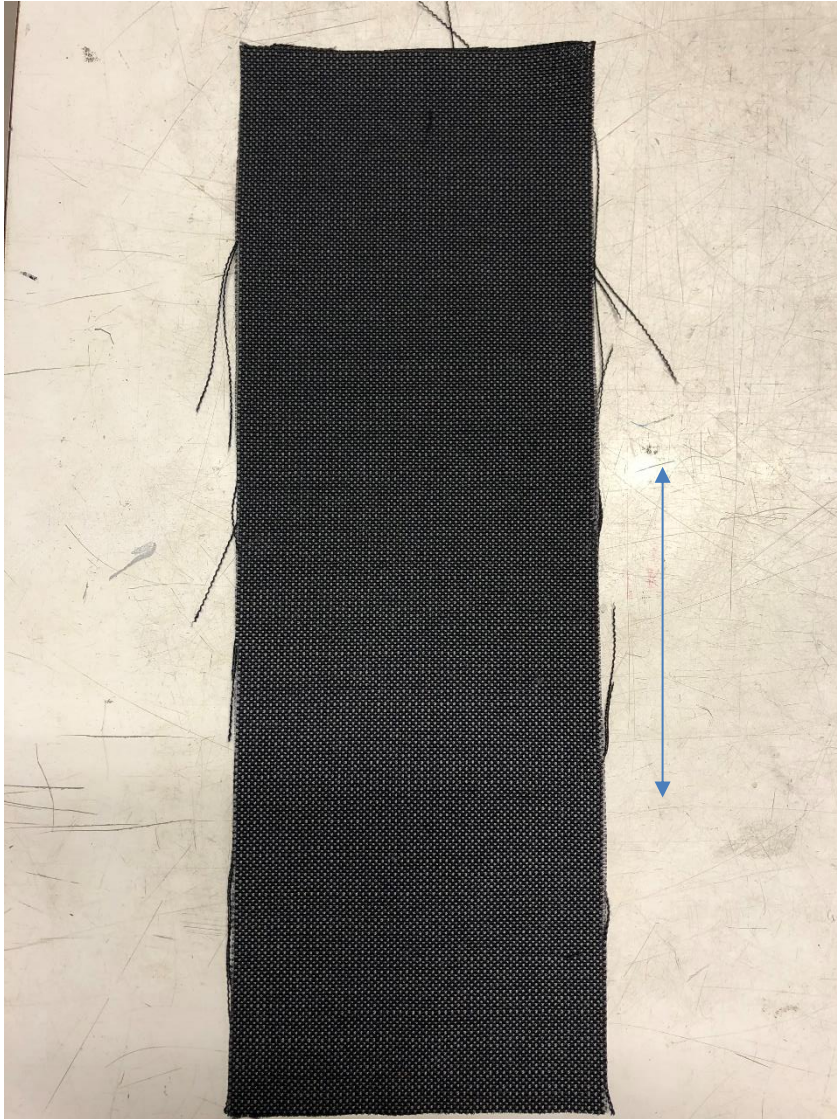


Photo 1. Sample of “Khaki”, machine direction.