

Allt i Tak Entreprenad AB
c/o Allt I Tak Östra Bangatan 5
195 60 ARLANDASTAD

External Fire Exposure to roof according to CEN/TS 1187, test method 2 with burning brands and wind

(2 appendices)

Introduction

RISE has by request of Allt i tak Entreprenad AB performed fire tests according to CEN/TS 1187 test 2. The purpose of the test is to form a basis for technical fire classification.

Product

According to the client:

Roof covering called “FATRAFOL 810/V” consisting of 92% PVC and 8% PES reinforcement. The product has a nominal area weight of 1.45 kg/m² and a nominal thickness of 1.2 mm.

Roof covering called “FATRAFOL 810/V” consisting of 92% PVC and 8% PES reinforcement. The product has a nominal area weight of 2.58 kg/m² and a nominal thickness of 2.0 mm.

Manufacturer

Fatra, a.s., Napajedla, Czech Republic.

Sampling

The samples were delivered by the client. It is not known to RISE Safety – Fire Research if the products received are representative of the mean production characteristics.

The samples were received October 22, 2018 at RISE Safety – Fire Research.

RISE Research Institutes of Sweden AB

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Test results

The test results of “FATRAFOL 810/V”, 1.2 mm”, when applied onto a combustible backing (PIR called IKO Enertherm), are given in appendix 1.

The test results of “FATRAFOL 810/V”, 2.0 mm”, when applied onto a combustible backing (PIR called IKO Enertherm), are given 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.

Deviation from standard

Only 2 tests were carried out on “FATRAFOL 810/V”, 2.0 mm, instead of the six stipulated in the standard.

This test does not comply with the standard as far as number of tests is concerned. It can therefore not be used as the sole basis for a classification or an approval.

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

Performed by

Examined by

Henrik Fredriksson

Per Thureson

Appendices

1 Test results - “FATRAFOL 810/V”, 1.2 mm.

2 Test results - “FATRAFOL 810/V”, 2.0 mm.

Appendix 1

Test results – CEN/TS 1187:2012, test 2

Product

Roof covering called “FATRAFOL 810/V” consisting of 92% PVC and 8% PES reinforcement. The product has a nominal area weight of 1.45 kg/m² and a nominal thickness of 1.2 mm.

Application

The specimen was laid loosely onto a combustible board backing (PIR called “IKO Enertherm”).

Test results

Test no	1	2	3	Average value	4	5	6	Average value
Air velocity, m/s	2	2	2		4	4	4	
The roof covering was ignited, min:s	00:20	00:23	00:23		00:24	00:25	00:22	
The flames died out, min:s	03:43	04:11	03:47		03:40	03:33	03:06	
The glow died out, min:s	09:55	08:55	07:45		05:55	05:48	05:52	
Fire and glow were extinguished, min:s	-	-	-		-	-	-	
Damage on the surface, mm	450	565	550	<u>522</u>	525	520	490	<u>512</u>
Damage in the underlay, mm	405	530	505	<u>480</u>	465	475	445	<u>462</u>

Appendix 1

Measured dataFATRAFOL 810/V

Thickness 1.1 – 1.2 mm.

Area weight 1.5 kg/m² approximately.

IKO Enertherm

Thickness 110 mm approximately.

Area weight 3.4 kg/m² approximately.

Conditioning

Temperature (23 ± 2) °C.

Relative humidity (50 ± 5) %.

Date of test

January 3, 2019

Appendix 2

Test results – CEN/TS 1187:2012, test 2

Product

Roof covering called “FATRAFOL 810/V” consisting of 92 % PVC and 8 % PES reinforcement. The product has a nominal area weight of 2.58 kg/m² and a nominal thickness of 2.0 mm.

Application

The specimen was laid loosley onto a combustible board backing (PIR called “IKO Enertherm”).

Test results

Test no	1	2	3	Average value	4	5	6	Average value
Air velocity, m/s	2	2	2		4	4	4	
The roof covering was ignited, min:s	00:22	-	-		00:22	-	-	
The flames died out, min:s	05:42	-	-		03:38	-	-	
The glow died out, min:s	10:27	-	-		06:50	-	-	
Fire and glow were extinguished, min:s	-	-	-		-	-	-	
Damage on the surface, mm	345	-	-	-	375	-	-	-
Damage in the underlay, mm	265	-	-	-	295	-	-	-

Appendix 2

Measured dataFATRAFOL 810/V

Thickness 2.0 mm approximately.
Area weight 2.4 kg/m² approximately.

IKO Enertherm

Thickness 110 mm approximately.
Area weight 3.4 kg/m² approximately.

Conditioning

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

Date of test

January 3, 2019.