

# RFPORT

Contact person

Issued by an Accredited Testing Laboratory

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Solarstone OÜ Arkaadia aed 5 71073 Viljandi linn Estland

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

(1 appendix)

#### Introduction

RISE has by request of Solarstone OÜ performed a fire test according to CEN/TS 1187 test 2. The test is for informatory purpose.

#### **Product**

According to the client:

Solar Full Roof (SFR) consisting of aluminium frame and hardened glass. Front - 2.0 mm solar glass with ARC and Back - 2.0 mm Solar glass Black Grid. The product has a nominal thickness of 35 mm and a nominal area weight 13.4 kg/m<sup>2</sup>.

#### Client

Solarstone OÜ, Tallinn, Estonia.

#### Sampling

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

The sample was received April 9, 2025 at RISE, Fire and Safety.

#### **Test results**

The test results of "Solar Full Roof (SFR)" when applied onto a combustible backing (expanded polystyrene (EPS), 20 kg/m<sup>3</sup>), 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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#### Criteria

According to EN 13501-5:2016 "Fire classification of construction products and building elements – Part 5: Classification using data from external fire exposure to roofs tests", a roof covering can be deemed to meet the criteria for class  $B_{ROOF}$  (t2) if it fulfils the following criteria when tested according to CEN/TS 1187, test 2 at 2 and 4 m/s:

- The damage length, in the roof covering as well as in the backing, does not exceed 550 mm in average of three tests.
- The damage length, in the roof covering as well as in the backing, does not exceed 800 mm in any test.

#### **Deviation from standard**

Only two tests were carried out, instead of the six stipulated in the standard.

#### Note

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 Fire and safety - Reaction to Fire Material Lab

Performed by

Examined by

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Henrik Frediksson

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#### **Appendix**

1. Test results – CEN/TS 1187:2012 test 2



Appendix 1

## Test results - CEN/TS 1187:2012, test 2

#### **Product**

According to the client:

Solar Full Roof (SFR) consisting of aluminium frame and hardened glass. Front - 2.0 mm solar glass with ARC and Back - 2.0 mm Solar glass Black Grid. The product has a nominal thickness of 35 mm and a nominal area  $13.4 \text{ kg/m}^2$ .

#### **Application**

The specimen was laid loosley onto a combustible board (expanded polystyrene (EPS)) having a density of 20 kg/m³ approximately.

#### **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	-	-	-		-	-	-	
The flames died out, min:s	02:21	-	-	-	02:17	-	-	-
The glow died out, min:s	08:32	-	-	-	05:41	-	-	-
Fire and glow were extinguished, min:s	-	-	-	-	-	-	-	-
Damage on the surface, mm	50	-	-	-	50	-	-	-
Damage in the underlay, mm	0	-	-	-	0	-	-	-

#### Note

The surface of the material does not ignite, the damage consists of heat deformation from the ignition source.

#### Measured data

Thickness 35.0 approximately. Area weight 15.0 kg/m<sup>2</sup> approximately.

## Conditioning

Date of test

Temperature  $(23 \pm 2)$  °C. Relative humidity  $(50 \pm 5)$  %. April 28, 2025.



# Verification

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#### Document

#### 1314877 Solarstone OÜ

Main document

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