

Solarstone OÜ

Tallinna 58

71073 Viljandi

Estonia

## 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 purpose of the test is to form a basis for technical fire classification.

This report replaces RISE report O100741-1182530, dated April 3, 2025. This revision includes a correction of the nominal area weight of the products.

### Product

According to the client:

Roof covering called “Solar Tiled Roof (STR)” or “Solar Full Roof (SFR)” consisting of aluminium frame and hardened glass. The Solar Tiled Roof has a nominal thickness of 21 mm and a nominal area weight of 11.5 kg/m<sup>2</sup>.

### Client

Solarstone OÜ, Tallinna, 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 February 21, 2023 at RISE, Fire and Safety.

### RISE Research Institutes of Sweden AB

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Accred. No. 1002  
Testing  
ISO/IEC 17025

## Test results

The test results of “Solar Tiled Roof (STR)” when applied onto a combustible backing (expanded polystyrene (EPS), 20 kg/m<sup>3</sup>), are given in appendix 1.

The test results also apply to Solar Full Roof (SFR).

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.

## RISE Research Institutes of Sweden AB Fire and safety - Reaction to Fire Material Lab

Performed by



Henrik Fredriksson

Examined by



Per Thureson

## Appendix

### 1. Test results

## Appendix 1

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

According to the client:

Roof covering called “Solar Tiled Roof (STR)” or “Solar Full Roof (SFR)” consisting of aluminium frame and hardened glass.. The Solar Tiled Roof has a nominal thickness of 21 mm and has nominal area weight of 11.5 kg/m<sup>2</sup>.

**Application**

The specimen was laid loosley onto a combustible board (expanded polystyrene (EPS)) having a density of 20 kg/m<sup>3</sup> 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	04:03	03:00	03:09		02:40	02:30	02:39	
The glow died out, min:s	09:08	08:01	07:42		06:36	04:58	05:03	
Fire and glow were extinguished, min:s	-	-	-		-	-	-	
Damage on the surface, mm	245	190	200	<u>212</u>	200	190	210	<u>200</u>
Damage in the underlay, mm	85	80	90	<u>85</u>	80	80	85	<u>82</u>

**Note**

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

## Appendix 1

**Measured data**

Thickness 21.5 – 35.3 mm.

Area weight 8.9 – 13.6 kg/m<sup>2</sup>.

**Conditioning**

Temperature (23 ± 2) °C.

Relative humidity (50 ± 5) %.

**Date of test**

March 29, 2023.

# Verification

Transaction 09222115557545848160

## Document

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Main document

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