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Solarstone OÜ
Tallinna 58
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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.

Product

According to the client:

Roof covering called “Solar Tiled Roof (STR)” or “Solar Full Roof (SFR)” consisting of aluminum frame and hardened glass. The product has a nominal thickness of 30 mm and a nominal area weight of 7.8 kg/m².

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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Confidentiality level
C3 - Sensitive

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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/m³), 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

Examined by



Henrik Fredriksson



Per Thureson

Appendix

1. Test results

Appendix 1

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

Product

Roof covering called “Solar Tiled Roof (STR)” or “Solar Full Roof (SFR)” consisting of aluminum frame and hardened glass. The product has a nominal thickness of 30 mm and a nominal area weight of 7.8 kg/m².

Application

The specimen was laid loosely 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	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/m².

Conditioning

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

Date of test

March 29, 2023.

Verification

Transaction 09222115557490363512

Document

1182530 Solarstone OÜ

Main document

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