

22L0153/3
25 April 2024

Classification report

for roof coverings exposed to external fire

X-Tile PV modules in combination
with Koramic Actua tiles



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Details

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Classification report**

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**Date of order
Project number**

02-04-2024
22L0153/3

Authors

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Subject

classification using test data from
external fire exposure to roofs tests

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1 Introduction

By order of Wienerberger B.V., Kiwa BDA Testing has drawn a classification report with reference to a fire test according to NEN 7250:2021 – Solar energy systems – intergration in roofs and facades in combination with the NEN 6063: 2019 – Bepaling van het brandgevaarlijk zijn van daken¹.

This concerns the classification of the **X-Tile PV modules** in combination with **Koramic Actua tiles** waterproofing system in combination with **Koramic Thermo 2S** vapour control layer, in accordance with the procedures given in NEN 6063:.

2 Description of the roof

The roof is fully described in the test report in support of this classification listed in table 1.

3 Test report and test results in support of this classification

Table 1

Name of laboratory	Name of sponsor	Number test report	Test method
Kiwa BDA Testing	Wienerberger B.V.	22-L-0153/1, dated 13-12-2022	NEN 7250:2021 / NEN 6063:2019

¹ Test method for external fire exposure to roofs.

4 Results

Test conditions

- Test pitch : 45°
- Supporting deck : Structure of a rafters, dimensions 70 mm × 45 mm, with on top of the rafters a OSB deck with a thickness of 18 mm. On top of the OSB deck a Koramic thermos 2S vapour control layer with a transverse joint of 135 mm has been applied.

Table 2

Parameter	Criteria	Test results on test specimen				Compliance
		1	2	3	4	
Internal fire spread upwards	< 0,700 m	0 mm	0 mm	0 mm	0 mm	yes
External fire spread upwards	< 0,700 m	0 mm	0 mm	0 mm	0 mm	yes
Internal fire spread downwards ²⁾	< 0,600 m	0 mm	0 mm	0 mm	0 mm	yes
External fire spread downwards	< 0,600 m	0 mm	0 mm	0 mm	0 mm	yes
Maximum burned length internal	< 0,800 m	0 mm	0 mm	0 mm	0 mm	yes
Maximum burned length external	< 0,800 m	0 mm	0 mm	0 mm	0 mm	yes
Burning, droplets/debris falling from exposed side	none	none	none	none	none	yes
Burning, glowing particles penetrating the roof	none	none	none	none	none	yes
Single through opening	< 25 mm ²	none	none	none	none	yes
Sum of all through openings	< 4500 mm ²	0 mm ²	0 mm ²	0 mm ²	0 mm ²	yes
Lateral fire spread, left	< edges ¹⁾	0 mm	0 mm	0 mm	0 mm	yes
Lateral fire spread, right	< edges ¹⁾	0 mm	0 mm	0 mm	0 mm	yes
Radius of fire spread (horizontal roof)	< 0,200 m	-	-	-	-	n.a.

¹⁾ Edges of the measuring zone.
²⁾ Because the substructure consists of several materials, the largest fire spread has been maintained.

5 Classification and field of application

Reference

This classification has been carried out in accordance with NEN 7250:2021 / NEN 6063:2019.

Classification

The roof covering X-Tile PV modules in combination with Koramic Actua tiles in combination with with Koramic Thermo 2S vapour barrier in relation to its external fire is considered to be not fire-susceptible and is classified B_{ROOF} (t1) according EN 13501-5:2016 – Fire classification of construction products and building elements – part 5: Classification using data from external fire exposure to roofs tests.

Field of application

This classification is valid for the following conditions:

- range of pitches: $\geq 20^\circ$ and $< 75^\circ$.
- range of decks:
 - actual tested deck.

6 Limitations

The classification results relate to the behaviour of a product and/or product family under the particular conditions of the test. The results are not intended to be the sole criteria for assessing the potential fire hazard of the product and/or product family.

The validity of the classification results expires when the used products are changed in their composition, thickness and/or any other properties.

Sampling was not performed by Kiwa BDA Testing, so no judgement can be given with regard to the origin and representativeness of the samples.

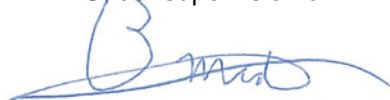
This document is not valid as type approval or as certificate of the product.

Gorinchem, 25 April 2024
The laboratory



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Under supervision of



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Member

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