Instytut Techniki Budowlanej
Research and development works | Accredited Group of Laboratories |
Notified Body N° 1488 | EOTA member | Certified management systems ISO 9001, ISO 27001

EXTERNAL EXPOSURE TO FIRE
CLASSIFICATION REPORT

of product:
The roof system POLY-Si Roofing System

02231/17/Z00NZP-ENG
on behalf of
OWNER OF CLASSIFICATION REPORT

Xpand EuroGroup Sp. z o.o. Sp.K.
ul. Przyjacielska4
20-704 Lublin

Contract №: 02231/17/Z00NZP

1 Introduction

This classification report defines the classification assigned to roof system POLY-Si Roofing System in accordance with the procedures given in PN-EN 13501-5+A1:2010.

2 Description of the roof

The layers of the roof in order from substrate:
- Substrate was particle board planks with thickness 16 mm density 680 ± 50 kg/m^3 acc. to CEN/TS 1187 method 1. The gaps between the planks were c.a. 5 mm
- Polyurethane foam HeatGuard 250 with thickness form 30 mm to 150 mm and density 40 kg/m^3±15%.
- Two layers of silicone coating SealCote 1000 with topping with quartz aggregate.

3. Test reports and test results in support of this classification

3.1 Test reports

Name of laboratory	Name of sponsor	Test report ref. №	Test Method
Fire Research Laboratory of ITB	Xpand EuroGroup Sp. z o.o. Sp.K.	LZP01-02231/17/Z00NZP	PKN CEN/TS 1187:2014, method – 1

3.2 Test results report LZP01-02231/17/Z00NZP

Parameter	Criteria	Test results				Compilance
		1	2	3	4	
Internal fire spread upwards	< 0,700 m	0,0	0,0	0,0	0,0	Yes
External fire spread upwards	< 0,700 m	0,0	0,0	0,0	0,0	Yes
Internal fire spread downwards	< 0,600 m	0,0	0,0	0,0	0,0	Yes
External fire spread downwards	< 0,600 m	0,0	0,0	0,0	0,0	Yes
Maximum burned length internal	< 0,800 m	0,0	0,0	0,0	0,0	Yes
Maximum burned length external	< 0,800 m	0,0	0,0	0,0	0,0	Yes
Burning, droplets/debris falling from expose side	No	N	N	N	N	Yes
Burning, glowing particles penetrating the roof	No	N	N	N	N	Yes
Single through opening	< 25 mm^2	0,0	0,0	0,0	0,0	Yes
Sum of all through openings	< 4500 mm^2	0,0	0,0	0,0	0,0	Yes
Lateral fire spread	< edge*	N	N	N	N	Yes
Internal glowing combustion	No	N	N	N	N	Yes
Radius of fire spread (horizontal roof)	< 0,200 m	-	-	-	-	*not applicable*

N – no
Y – yes
Test conditions: Temperature of air: 18,0°C (Test pitch: 15°)

4 Classification and field of application

4.1 Reference

This classification has been carried out in accordance with PN-EN 13501-5:2016-07.

4.2 Classification

Roof system described in the section 2, in relation to its fire performance is classified:

- B_{roof} (t_1).

This classification remains valid for end use applications as a roof „none spreading fire" in accordance with Rozporządzenie Ministra Infrastruktury z dnia 12 kwietnia 2002 r. (Dz. U. Nr 75 z 15 czerwca 2002, poz.690 z późniejszymi zmianami).

4.3 Field of application

This classification is valid for the following conditions:

1) Any wood or wooden deck with minimum thickness 16 mm and with gaps not exceeding 5 mm.
2) Any non-combustible deck with minimum thickness 10 mm and gaps not exceeding 5 mm.
3) Any substrate from profiled or none profiled, not perforated steel with minimum thickness 1 mm.
4) Roofs with pitch no more than 20°

5 Limitations

5.1 Validity

This classification given remains valid till 15.01.2021, as long as the composition, structure and/or the production's technology remains unchanged.

5.2 Restrictions

This classification report has been issued in three copies (2 for client, 1 for Fire Research Department of ITB). Additional signed copies can be issued by Fire Research Department of ITB on the request of the report's owner only.
This classification document does not represent type approval or certification of the product..

Report	Name	Signature*	Date
Prepared by	Bartłomiej Papis		15.01.2018

* - For and on behalf of "Name of the organisation"

ACTING HEAD
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