

CLASSIFICATION REPORT FOR ROOFS EXPOSED TO EXTERNAL FIRE

**Subject of
classification:**

*Roofs and roof coverings
in accordance with EN 13501-5:2017, cl.8.4 and 9*

Report No.:

PK5-03-23-902-E-2

Product name:

*Roofs with roof covering from PVC foil FATRAFOL 810/V
and insulation layer from PIR*

Sponsor:

***Fatra a.s.**
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Accredited certification body for product certification No. 3041
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1 INTRODUCTION

- 1.1 This classification report defines the classification assigned to roof *Roofs with roof covering from PVC foil FATRAFOL 810/V and insulation layer from PIR* in accordance with the procedures given in EN 13501-5:2016.
- 1.2 This classification report consists of 5 pages and may only be used or reproduced in its entirety.
- 1.3 This classification report supersedes and cancels classification report No. PK5-03-23-902-E-1 from 2024-02-12.

2 DESCRIPTION OF THE ROOF

The roof *Roofs with roof covering from PVC foil FATRAFOL 810/V and insulation layer from PIR* comprises:

Roof structure No. 1:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- PIR insulation with AL foil, thickness 60 to 460 mm, class of reaction to fire E or better
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 2:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- PIR insulation with AL foil, thickness 60 to 460 mm, class of reaction to fire E or better
- Thermal insulation with reaction to fire E or better
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 3:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- Mineral wool, thickness ≤ 460 mm (thickness of this thermal insulation together with PIR is 60 up to 460 mm)
- PIR insulation with AL foil, thickness ≤ 460 mm, class of reaction to fire E or better
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 4:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- Glass fleece, mass per unit area 120 g/m², thickness 0,72 mm
- Polystyrene EPS, thickness ≤ 460 mm (thickness of this thermal insulation together with PIR is 60 up to 460 mm)
- PIR insulation with AL foil, thickness ≤ 460 mm, class of reaction to fire E or better
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No. 5:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- PIR insulation with AL foil, thickness 60 to 460 mm, class of reaction to fire E or better

- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 6:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- Mineral wool, thickness ≤ 460 mm (thickness of this thermal insulation together with PIR is 60 up to 460 mm)
- PIR insulation with AL foil, thickness ≤ 460 mm, class of reaction to fire E or better
- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 7:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- PIR insulation with AL foil, thickness ≤ 460 mm, class of reaction to fire E or better
- Mineral wool, thickness ≤ 460 mm (thickness of this thermal insulation together with PIR is 60 up to 460 mm)
- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No 8:

- Roof covering – FATRAFOL 810/V, PVC foil, thickness 1,5 mm or 1,8 mm or 2,0 mm
- Glass fleece, mass per unit area 120 g/m², thickness 0,72 mm
- Polystyrene EPS, thickness ≤ 460 mm (thickness of this thermal insulation together with PIR is 60 up to 460 mm)
- PIR insulation with AL foil, thickness ≤ 460 mm, class of reaction to fire E or better
- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

3 REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1 Reports

Name of laboratory Address Accreditation number	Name of sponsor	Report ref. No. Date of issue	Test method and date / field of application rules and date
PAVUS, a.s. Veselí nad Lužnicí ATL No. 1026	Fatra a.s. třída Tomáše Bati 1541 763 61 Napajedla Czech Republic	Pr-23-2.169 2023-10-27	ČSN P CEN/TS 1187:2012 – Test 3
		Pr-23-2.175 2023-11-14	
		Pr-23-2.176 2023-11-14	
		Pr-23-2.177 2023-11-14	
		Pr-15-2.083 2015-08-07	
PAVUS, a. s. Prosecká 412/74 190 00 Prague 9 – Prosek COV 3041		Pr-15-2.087 2015-08-07	ČSN P CEN/TS 16459:2020
		PRA5-03-23-902-C-2 2024-02-26	

3.2 Test results

Test conditions:

Test pitch: 5°

Supporting deck: wood particle board deck with gaps of (5,0 ± 0,5) mm between planks

Parameter	Criteria			Test results		Compliance		
	Class B _{ROOF} (t3)	Class C _{ROOF} (t3)	Class D _{ROOF} (t3)	Specimen 1	Specimen 2	Class B _{ROOF} (t3)	Class C _{ROOF} (t3)	Class D _{ROOF} (t3)
External fire spread time T_E	≥ 30 min	≥ 10 min		30 min	30 min	yes	-	-
Time to fire penetration T_P	≥ 30 min	≥ 15 min	> 5 min	-	-	yes	-	-

4 CLASSIFICATION AND FIELD OF APPLICATION

4.1 Reference

This classification has been carried out in accordance with EN 13501-5.

4.2 Classification

The roof *Roofs with roof covering from PVC foil FATRAFOL 810/V and insulation layer from PIR* in relation to its external fire performance is classified:

B_{ROOF}(t3)

4.3 Field of application

This classification is valid for the following conditions:

Range of pitches: < 10°

Range of decks:

- any wooden continuous deck with a minimum thickness of 12 mm;
- any deck made from wooden planks with plain edges;
- any non-combustible deck with gaps not exceeding 5 mm.

5 LIMITATION

This classification is valid unless the conditions, under which it was issued, have been changed (i.e., until the materials used, the composition or design of the product or the technical regulations relating to the product change).

The sponsor may request the issuing authority to review the influence of changes on the classification validity.

The validity of this Classification Report is 5 years from the date of issue.

This classification document does not represent type approval or certification of the product.

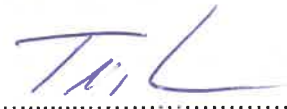
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