



PAVUS[®]
FIRE TESTING INSTITUTE

PAVUS, a.s.

AUTHORIZED BODY AB 216

NOTIFIED BODY 1391

ACCREDITED CERTIFICATION BODY FOR PRODUCT CERTIFICATION No. 3041

Address:

Prosecká 412/74, 190 00 Prague 9 – Prosek

Phone: 286 019 587, E-mail: mail@pavus.cz

http://www.pavus.cz

Branch:

Fire testing laboratory Veselí nad Lužnicí

Čtvrť J. Hybeše 879, 391 81 Veselí nad Lužnicí

Phone: 381 477 418, E-mail: veseli@pavus.cz

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.:

PK5-03-15-902-E-6

Product name:

*Roofs with roof covering from PVC foil FATRAFOL 810/V or
FATRAFOL 810*

Sponsor:

***Fatra a.s.**
třída Tomáše Bati 1541
763 61 Napajedla
Czech Republic*

Prepared by:

*PAVUS, a.s.
Accredited certification body for product certification No. 3041
– accreditation issued by Czech Accreditation Institute, p. s. c.,
– Certificate of Accreditation No. 588/2022*

*Prosecká 412/74
190 00 PRAGUE 9
Czech Republic*

Order No. Z220230275

Date of issue:

2023-07-11

Copies in total:

2

Copy number:

1

Pages in total:

6

1 INTRODUCTION

- 1.1 This classification report defines the classification assigned to roof *Roofs with roof covering from PVC foil FATRAFOL 810/V or FATRAFOL 810* in accordance with the procedures given in EN 13501-5:2016.
- 1.2 This classification report consists of 6 pages and may only be used or reproduced in its entirety.
- 1.3 This classification report supersedes and cancels classification report No. PK5-03-15-902-E-5 from 2022-12-19.

2 DESCRIPTION OF THE ROOF

The roof *Roofs with roof covering from PVC foil FATRAFOL 810/V or FATRAFOL 810* comprises:

Roof structure No. 1:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 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. 2:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- Supporting deck made from concrete (brickwork) or lightweight concrete
(roof pitch 5°)

Roof structure No. 3:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Existing roof structure
Note: The separation layer (if added) is made of glass fleece or polyester geotextile with mass per unit area not greater than 300 g/m².
(roof pitch 5°)

Roof structure No. 4:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- the existing roof structure has classification B_{ROOF}(t3) or is deemed to have B_{ROOF}(t3); the supporting deck is trapezoidal profiled steel with an insulation material, or made of concrete (brickwork) or lightweight concrete, with or without insulation boards.
Note: The separation layer (if added) is made of glass fleece or polyester geotextile with mass per unit area not greater than 300 g/m².
(roof pitch 5°)

Roof structure No. 5:

- Roof covering – FATRAFOL 810 with anti-skid tread pattern, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,4 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 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. 6:

- Roof covering – FATRAFOL 810 with anti-skid tread pattern, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,4 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- Supporting deck made from concrete (brickwork) or lightweight concrete
(roof pitch 5°)

Roof structure No. 7:

- Roof covering – FATRAFOL 810 with anti-skid tread pattern, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,4 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- Mineral wool or cellular glass or perlite, thickness ≥ 30 mm ($\lambda \geq 0,035$ W/m²*K, density ≥ 110 kg/m³)
- Existing roof structure

Note: The separation layer (if added) is made of glass fleece or polyester geotextile with mass per unit area not greater than 300 g/m².

(roof pitch 5°)

Roof structure No. 8:

- Roof covering – FATRAFOL 810 with anti-skid tread pattern, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,4 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- the existing roof structure has classification B_{ROOF(t3)} or is deemed to have B_{ROOF(t3)}; the supporting deck is trapezoidal profiled steel with an insulation material, or made of concrete (brickwork) or lightweight concrete, with or without insulation boards.

Note: The separation layer (if added) is made of glass fleece or polyester geotextile with mass per unit area not greater than 300 g/m².

(roof pitch 5°)

Roof structure No. 9:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 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 70S to 200S, thickness 100 to 300 mm, class of reaction to fire E or better
- Vapour barrier
 - o vapour barrier from PE foil, thickness 0.2 mm, class of reaction to fire F; or
 - o vapour barrier from bitumen sheet Glastek 40 Special mineral, thickness 4,0 mm
- Standard supporting deck from particle board

(roof pitch 5°)

Roof structure No. 10:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 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 70S to 200S, thickness 300 to 700 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. 11:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 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 70S to 200S, thickness 20 to 670 mm, class of reaction to fire E or better

- Mineral wool, thickness 30 mm to 400 mm (thickness of this mineral wool together with polystyrene EPS is maximum 700 mm)
- 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. 12:

- Roof covering – FATRAFOL 810, thickness 1,2 mm or 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 70S to 100S, thickness 100 to 300 mm, class of reaction to fire E or better
- Vapour barrier – vapour barrier from PE foil, thickness 0.2 mm, class of reaction to fire F
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No. 13:

- Roof covering – FATRAFOL 810, thickness 1,2 mm or 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 70S to 100S, thickness 300 to 700 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. 14:

- Roof covering – FATRAFOL 810 / V, thickness 1,2 mm or 1,5 mm or 1,8 mm or 2,0 mm
- Glass fleece, mass per unit area 120 g/m², thickness 0,72 mm
- Standard supporting deck from particle board
(roof pitch 5°)

Roof structure No. 15:

- tile FATRAFOL WALK 600, PVC-P foil, thickness 10 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,8 mm or 2,0 mm
- Glass fleece, mass per unit area 120 g/m², thickness 0,72 mm
- Polystyrene EPS 70S to 150S, thickness 100 to 700 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. 16:

- tile FATRAFOL WALK 600, PVC-P foil, thickness 10 mm
- Roof covering – FATRAFOL 810 / V, thickness 1,8 mm or 2,0 mm
- Glass fleece, mass per unit area 120 g/m², thickness 0,72 mm
- Polystyrene EPS 70S to 150S, thickness 100 to 700 mm, class of reaction to fire E or better
- Mineral wool, thickness max 600 mm (thickness of this mineral wool together with polystyrene EPS is maximum 700 mm)
- Vapour barrier – vapour barrier with class of reaction to fire F or better
- Standard supporting deck from particle board
(roof pitch 5°)

Fixing roof structure (valid for all of structure No. 1 to 16): The roof is fixed mechanically to the support deck by anchors and screws, foil joints are carried out with overlap and heat fused.

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-15-2.082 2015-08-07	ČSN P CEN/TS 1187:2012 – Test 3
		Pr-15-2.083 2015-08-07	
		Pr-15-2.084 2015-08-07	
		Pr-15-2.085 2015-08-07	
		Pr-15-2.086 2015-08-07	
		Pr-15-2.087 2015-08-07	
		Pr-15-2.088 2015-08-07	
		Pr-15-2.089 2015-08-07	
		Pr-17-2.157 2017-08-08	
		Pr-17-2.158 2017-08-08	
		Pr-17-2.218 2017-12-06	
		Pr-18-2.119 2018-07-12	
		Pr-18-2.120 2018-07-12	
		Pr-19-2.125 2019-08-06	
Pr-22-2.220 2022-12-05			
Pr-22-2.221 2022-12-05			
PAVUS, a. s. Prosecká 412/74 190 00 Prague 9 – Prosek COV 3041		PRA5-03-15-902-C-6 2023-07-11	ČSN P CEN/TS 16459:2020

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 or FATRAFOL 810* 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

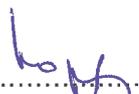
This classification is valid unless the conditions, under which it was issued, have been changed (i.e., until the materials used, the composition or design of the product or the technical regulations relating to the product change).

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.

Elaborated by:



Jaroslav KOPEČNÝ

Reviewed by:



Jana BUCHTOVÁ

Approved by:



Jan TRIPES

PAVUS, a.s.
 Prosecká 412/74, 190 00 Praha 9
 IČ: 60293174; DIČ: CZ60193174

