

**EXTERNAL EXPOSURE TO FIRE
CLASSIFICATION REPORT**
for roofs systems with bituminous roofing membranes UAB MIDA LT
01453/26/Z00NZZP-ENG (extension 02672/25/Z00NZZP-ENG)

on behalf of
OWNER OF CLASSIFICATION REPORT

UAB MIDA LT
Gamyklos str. 19
Gargzdai
LT-96155 Klaipeda dis.

Contract №: 01453/26/Z00NZZP

1 Introduction

This classification report defines the classification assigned to roofs systems with bituminous roofing felts UAB MIDA LT in accordance with the procedures given in EN 13501-5:2016-07 method 1.

2 Description of the specimen

Roof covered with roofing felt UAB MIDA LT.

Layer's arrangement from the underside of the roof (**layout 1**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- vapor barriers from polyethylene foils,
- EPS boards 100 mm,
- glass fleece with a weight of 120 g/m²,
- bituminous roofing underlayer MIDAELAST PV S5s, thickness 5.0 mm, reinforced with a polyester non-woven carrier,
- bituminous roofing top layer MIDAELAST PV S5b, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

Layer's arrangement from the underside of the roof (**layout 2**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- vapor barriers from polyethylene foils,
- PIR boards 100 mm,
- bituminous roofing underlayer MIDAELAST PV S5s, thickness 5,0 mm, reinforced with a polyester non-woven carrier,
- bituminous roofing top layer MIDAELAST PV S5b, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

Layer's arrangement from the underside of the roof (**layout 3**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- vapor barriers from polyethylene foils,
- mineral wool 100 mm,
- bituminous roofing underlayer MIDAELAST PV S5s, thickness 5,0 mm, reinforced with a polyester non-woven carrier,
- bituminous roofing top layer MIDAELAST PV S5b, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

Layer's arrangement from the underside of the roof (**layout 4**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- bituminous roofing underlayer MIDAELAST PV S5s, thickness 5,0 mm, reinforced with a polyester non-woven carrier,
- bituminous roofing top layer MIDAELAST PV S5b, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

Layer's arrangement from the underside of the roof (**layout 5**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- vapor barriers from polyethylene foils,
- EPS boards 100 mm,
- glass fleece with a weight of 120 g/m²,
- bituminous roofing single layer MIDA FIX TOP PV S5, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

Layer's arrangement from the underside of the roof (**layout 6**):

- particle board planks with thickness 16 mm density 650 kg/m³. The gaps between the planks were c.a. 5 mm,
- vapor barriers from polyethylene foils,
- EPS boards 100 mm,
- underlayment with a construction cardboard base,
- underlayment with a glass fiber fleece,
- glass fleece with a weight of 120 g/m²,
- bituminous roofing underlayer MIDAELAST PV S5s, thickness 5,0 mm, reinforced with a polyester non-woven carrier,
- bituminous roofing top layer MIDAELAST PV S5b, thickness 5,2 mm, reinforced with a polyester non-woven carrier.

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 | UAB MIDA LT Gamyklos str. 19 Gargzdai LT-96155 Klaipeda dis. | LZP01-02672/25/Z00NKP LZP02-02672/25/Z00NKP LZP03-02672/25/Z00NKP LZP04-02672/25/Z00NKP LZP05-02672/25/Z00NKP LZP06-02672/25/Z00NKP | CEN/TS 1187:2014, (method 1) |

3.2 Test results for layout 1

Test report: LZP01-02672/25/Z00NKP

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|----------------|
| | | 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 |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm

3.3 Test results for layout 2**Test report: LZP02-02672/25/Z00NZP**

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|-----------------------|
| | | 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 | - | - | - | - | <i>not applicable</i> |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm**3.4 Test results for layout 3****Test report: LZP03-02672/25/Z00NZP**

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|-----------------------|
| | | 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 | - | - | - | - | <i>not applicable</i> |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm**3.5 Test results for layout 4****Test report: LZP04-02672/25/Z00NZP**

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|-----------------------|
| | | 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 | - | - | - | - | <i>not applicable</i> |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm

3.6 Test results for layout 5

Test report: LZZP05-02672/25/Z00NZZP

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|-----------------------|
| | | 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 | - | - | - | - | <i>not applicable</i> |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm

3.7 Test results for layout 6

Test report: LZZP06-02672/25/Z00NZZP

| Parameter | Criteria | Test results | | | | Compliance |
|---|------------------------|--------------|-----|-----|-----|-----------------------|
| | | 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 | - | - | - | - | <i>not applicable</i> |

* - edge of the measurement zone

Test conditions: Temperature of air: 18,5°C

Test pitch: 15°

Substrate: particle board planks with thickness 16 mm density 650 ± 50 kg/m³. The gaps between the planks were c.a. 5 mm

4 Classification and field of application

4.1 Reference

This classification has been carried out in accordance with EN 13501-5:2016-07 method 1.

4.2 Classification

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

B_{ROOF} (t1)

4.3 Field of application

This classification is valid for the following conditions:

- 1) Decks:
 - a. any wooden continuous deck with a minimum thickness of 16 mm and with gaps not exceeding 0,5 mm;
 - b. any wooden continuous deck with gap not exceeding 5 mm;
 - c. any non-combustible continuous deck with a minimum thickness of 10 mm;
 - d. any non-combustible deck with gaps not exceeding 5 mm;
 - e. any profiled and non-perforated steel deck;
 - f. any old roof with bitumen or synthetic membrane.
- 2) Vapor barriers:
 - a. vapor barrier felts acc. to EN 13707 or EN 13970 or EN 13984 with minimum fire class E acc. to EN 13501-1;
 - b. polyethylene film or any foils;
 - c. no vapor barrier at all.
- 3) Thermal insulation:
 - a. EPS CS(10) \geq 70 kPa with a thickness of at least 50 mm, including slope wedges, with minimum reaction to fire class E acc. to EN 13501-1. Systems, where bitumen membranes are installed on the EPS by torching, a separation layer of glass fleece with a minimum weight of 120 g/m² or any noncombustible layer should be used.
 - b. mineral wool CS(10) \geq 30 kPa with thickness minimum 20 mm, including slope wedges, with a minimum reaction to fire class A2-s3, d0 according to EN 13501-1.
 - c. PIR panels minimum thickness 20 mm, including slope wedges, with minimum reaction to fire class E acc. to EN 13501-1.
 - d. any combination of above-mentioned thermal insulation (a, b, c)
 - e. no thermal insulation at all
- 4) Waterproof layer:
 1. Double layer:
 - a. bituminous roofing underlayer manufactured by UAB MIDA LT: MIDA BALT PV S3s; MIDA GLASS G200 S4; MIDA SELF BASE GV S3 HMS SBS; MIDA SELF BASE GV S3 HPS SBS; MIDA SELF PV S 2,00 s; MIDA STANDART PV S3 EPP SBS; MIDA STANDART PV S4 EMP SBS; MIDA YEP6500; MIDA YEP4500; MIDA YEP3500; MIDABIKRO EPP 3.0; MIDABIKRO EPP 4.0; MIDAPOL EPP 3,0; MIDAPOL STANDART EPP; MIDAELAST PV S4s; MIDAELAST PV S5s; MIDAFLEKS K-MS 170/4000; MIDAFLEKS K-MS 170/4000 sand; MIDAFLEKS PV S3s; MIDAELAST K-MS 170/3000 EMM SBS; MIDAELAST K-MS 170/4000; MIDAFLEKS EMP 3,7; MIDAFLEKS EPP 4.0; MIDA LIGHT G Euro; MIDA LIGHT S Euro; MIDA ROOF FIX black grit; MIDA ROOF FIX EMM SBS; MIDA SELF PRO; MIDA SELF SA P 2 mm; MIDA YEP2500; MIDA YEP2200

and/or

 - b. bituminous roofing top layer manufactured by UAB MIDA LT (any colors): MIDA BALT PV S4b; PYE PV250 S5 AJ-20; MIDABIKRO EKP 4.0; MIDAPOL EKP 4.0; MIDAPOL STANDART EKP; MIDAELAST PV S4b; MIDAELAST PV S5b; MIDAFLEKS K-MS 170/4000; MIDAFLEKS K-PS 170/5000; MIDAFLEKS PV S4b; MIDAELAST EKP 5500; MIDAELAST K-PS 170/5000; MIDAFLEKS EKP 5.0;
 - or
 2. Single layer:
 - a. bituminous single layer manufactured by UAB MIDA LT: MIDA FIX TOP PV S5; MIDA K-YS 5500
- 5) separation layer of glass fleece with a minimum weight of 120 g/m² or any noncombustible layer can be laid as any layer, and this does not change the overall compliance of the roof system.
- 6) Roofs with pitches no more than 20°.

5 Limitations

5.1 Validity

This classification given remains valid till **31.12.2028**, as long as the composition, structure and/or the production's technology remains unchanged.

5.2 Restrictions

This classification report has been issued in electronic form, with qualified electronic signatures of responsible persons. The printout of this report is not an original document. A document bearing a qualified electronic signature whose certificate has already expired is still valid (the certificate was valid on the day the document was signed). Additional signed copies can be issued by Fire Research Department of ITB on the request of the report's owner only.

5.3 Warning

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

| Classification | Name | Date | Signature |
|----------------|-------------------------------|------------|-------------|
| Prepared by | Tomasz Gwiżdż. Eng. | 19.05.2026 | e-signature |
| Verified by: | Bartłomiej K. Papis PhD. Eng. | 19.05.2026 | e-signature |

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