

# ***Classification report for roofs/roof coverings exposed to external fire*** ***No. 19012B***

## **Owner of the classification report**

METROTILE EUROPE nv  
Michielenweg 3  
3700 TONGEREN  
BELGIUM

## **Introduction**

This classification report defines the classification assigned to the roof/roof covering “**Aqua-pan (Easy-tuile/pan/cover) Standard, Bond (XL), Mistral (Linea, Ebona), Gallo (Gallea), Romana (Romane), Metrotile Bond, Roman (Riviera), Classic, Shake, Woodshake (Montana), Shingle, Viksen (Villa), Mistral, Romana, Gallo, iSeries, MetroBond, Moderna**” in accordance with the procedures given in the standard EN 13501-5:2016: Fire classification of construction products and building elements – Part 5: Classification using data from external fire exposure to roof tests: Test 1: Method with burning brands.

**This classification report consists of 8 pages.**

## 1. DESCRIPTION OF THE ROOF/ROOF COVERING

	Nominal value	Measured value
<b>SUPPORTING DECK</b>		
Material	Wood particle board with gaps $5,0 \pm 0,5$ mm according to § 4.4.2. of the standard CEN/TS 1187	
<b>INSULATING LAYER (OPTIONAL)</b>		
Material	Dual density Mineral wool with a hard top layer	
Trade name	Tauroxx	
Manufacturer	Rockwool	
Supplier	Metrotile	
Thickness (mm)	100	100
Total Density (kg/m <sup>3</sup> )		
<i>Foam</i>	142	139
<i>First layer</i>	128	(1)
<i>Top layer layer</i>	210	(1)
Flame retardants	No	(1)
Fixing method	Mechanically (details not communicated)	
Compressive strength according to EN 826 (kPa)	> 50	
Reaction to fire according to EN 13501-1	A1	
<b>WOODEN BEAMS</b>		
1.1 <u>Lateral battens for supporting the shingles</u>		
Material	Pinewood	
Dimensions: height x thickness (mm)	30 x 37	31 x 36
Density	Not communicated	367
Flame retardants	No	
Fixing method	Mechanically (details not communicated)	
1.2 <u>Longitudinal beams for supporting the structure</u>		
Material	Pinewood	
Dimensions: height x thickness (mm)	100 x 40	90 x 40
Density	Not communicated	571
Flame retardants	No	
Fixing method	Mechanically (details not communicated)	

(1) Not verifiable

	Nominal value	Measured value
<b>ROOF COVERING</b>		
1.1 <u>Top layer</u>		
Material	Profiled metal sheets with acryl(base)coating, mineral granules and acryl(top)coating	
Trade name	Easy-pan / Easy-tuile / Easy-cover / Aquapan Metrobond	
Manufacturer / Supplier	Metrotile	
Colour	Red	
Thickness of the metal sheet (mm)		
<i>Easy-pan / Easy-tuile / Easy-cover / Aquapan</i>	0,35	(1)
<i>Metrobond</i>	0,45	(1)
Total thickness (mm)		
<i>Easy-pan / Easy-tuile / Easy-cover / Aquapan</i>	1,8	1,4
<i>Metrobond</i>	(2)	1,6
Surface weight (g/m <sup>2</sup> )	5000±3000	Known by laboratory
Surface weight of the coating (g/m <sup>2</sup> )		
<i>acryl(base)coating</i>	400	
<i>mineral granules</i>	1200	
<i>acryl(top)coating</i>	88	
Flame retardants	No	(1)
Fixing method	Mechanically (details not communicated)	

(1) Not verifiable

(2) Not communicated

## 2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

### a) Test reports

Name of the laboratory	Name of the sponsor	Test report ref. Nr.	Test date	Test method
WFRGENT N.V. Ghent, Belgium	Metrotile N.V.	13837A	12/01/2009 and 05/05/2009	CEN/TS 1187:2012 test method 1
	Metrotile Europe nv	19012A	27/03/2018	

### b) Test results

<b>Test Results on 19012A</b>			
Supporting deck: wood particle board with gaps $5,0 \pm 0,5$ mm			
Test pitch: $45^\circ$			
Parameter	Criteria	1	Complies
Internal fire spread upwards	< 0,700 m	0	Yes
External fire spread upwards	< 0,700 m	0	Yes
Internal fire spread downwards	< 0,600 m	0	Yes
External fire spread downwards	< 0,600 m	0	Yes
Maximum burned length internal	< 0,800 m	0	Yes
Maximum burned length external	< 0,800 m	0	Yes
Burning, droplets/debris falling from exposed side	None	None	Yes
Burning, glowing particles penetrating the roof	None	None	Yes
Single through opening	< 25mm <sup>2</sup>	0	Yes
Sum of all through openings	<4500mm <sup>2</sup>	0	Yes
Lateral fire spread	<edges <sup>(1)</sup>	<edges	Yes
Internal glowing combustion	None	None	Yes
Radius of fire spread (horizontal roof)	<0,200 m	(-)	(-)

(-) Not applicable

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<sup>(1)</sup> Edges of the measuring zone

<b>Test Results on 13837A</b>						
Supportin deck: wood particle board with gaps 5,0 ± 0,5 mm						
Test pitch: 45°						
Parameter	Criteria	1	2	3	4	Complies
Internal fire spread upwards	< 0,700 m	0	0	0	0	Yes
External fire spread upwards	< 0,700 m	0,120	0,125	0,105	0,150	Yes
Internal fire spread downwards	< 0,600 m	0	0	0	0	Yes
External fire spread downwards	< 0,600 m	0	0	0,035	0,040	Yes
Maximum burned length internal	< 0,800 m	0	0	0	0	Yes
Maximum burned length external	< 0,800 m	0	0	0	0	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	< 25mm <sup>2</sup>	0	0	0	0	Yes
Sum of all through openings	<4500mm <sup>2</sup>	0	0	0	0	Yes
Lateral fire spread	<edges <sup>(2)</sup>	<edges	<edges	<edges	<edges	Yes
Internal glowing combustion	None	None	None	None	None	Yes
Radius of fire spread (horizontal roof)	<0,200 m	(-)	(-)	(-)	(-)	(-)

(-) Not applicable

#### Test results on 19506A

Supportin deck: wood particle board with gaps 5,0 ± 0,5 mm

Test pitch: 45°

Parameters	Criteria	Test Results	Compliance
		1	yes/no
Internal fire spread upwards (mm)	< 700 mm	0	yes
External fire spread upwards (mm)	< 700 mm	0	yes
Internal fire spread downwards (mm)	< 600 mm	0	yes
External fire spread downwards (mm)	< 600 mm	0	yes
Maximum burned length internal (mm)	< 800 mm	0	yes
Maximum burned length external (mm)	< 800 mm	0	yes
Burning, droplets/debris falling from exposed side	None	None	yes
Burning, glowing particles penetrating the roof	None	None	yes
Single through opening (mm <sup>2</sup> )	< 25 mm <sup>2</sup>	0	yes
Sum of all through openings (mm <sup>2</sup> )	< 4500 mm <sup>2</sup>	0	yes
Lateral fire spread	< edges*	< edge	yes
Internal glowing combustion	None	None	yes
Radius of fire spread (horizontal roof only) (mm)	< 200 mm	(-)	yes

(<sup>2</sup>) Edges of the measuring zone

### 3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

#### a) Reference

This classification has been carried out in accordance with clause 9 Test 1 of EN 13501-5:2016, and EN 14783:2013.

#### b) Classification

The roof / roof covering “**Aqua-pan (Easy-tuile/pan/cover) Standard, Bond (XL), Mistral (Linea, Ebena), Gallo (Gallea), Romana (Romane), Metrotile Bond, Roman (Riviera), Classic, Shake, Woodshake (Montana), Shingle, Viksen (Villa), Mistral, Romana, Gallo, iSeries, MetroBond, Moderna**” in relation to its external fire performance is classified:

**BROOF (t1)**

c) Field of direct application

The classification is valid for the system as described in §1 for the following conditions:

- Range of pitches:  $\geq 20^\circ$

d) Field of extended application

This extended application for the product as described in §1.2, is valid for the following product parameters and end-use applications:

- Layer 0: Toplayer: Profiled metal sheets: Aqua-pan (Easy-tuile/pan/cover) Standard, Bond (XL), Mistral (Linea, Ebena), Gallo (Gallea), Romana (Romane), Metrotile Bond, Roman (Riviera), Classic, Shake, Woodshake (Montana), Shingle, Viksen (Villa), Mistral, Romana, Gallo, iSeries, MetroBond, Moderna

Steel thickness	0,35 mm or more
Total Surface weight (g/m <sup>2</sup> )	5000±300 g/m <sup>2</sup> or higher
Surface weight of the coating (g/m <sup>2</sup> )	
<i>acryl(base)coating</i>	400
<i>mineral granules</i>	1200
<i>acryl(top)coating</i>	88
Fixation	Mechanically
Colour	Red

- Layer 1: wooden battens

Dimensions (height x width)	30 x 37 mm
Density	367 kg/m <sup>3</sup>

- Layer 2: wooden beams

Dimensions (height x width)	100 x 40 mm
Density	571 kg/m <sup>3</sup>

- Layer 3 (OPTIONAL): Insulation: mineral wool without facing/backing

Thickness	50 mm or more
Fixation	Mechanically
Density	142 kg/m <sup>3</sup>
Reaction to fire according to EN13501-1	A1
Compressive strength according to EN826	CS (10) 50 or less

- Layer 4: Support:

Range of supports:	All supports are allowed
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(2) not known by the customer

#### 4. LIMITATIONS

At the time the standard EN 13501-5:2016 was published, no decision was made concerning the duration of validity of a classification document.

Provisions of Regulation (EU) 305/2011, commonly known as the Construction Products Regulation (CPR), prevail over any conflicting provisions in the harmonised standards and technical specifications.

#### 5. WARNING

This classification report does not represent type approval nor certification of the product.

#### 6. CONCERNING DECLARATION OF PERFORMANCE (DOP) ACCORDING TO THE CONSTRUCTION PRODUCT REGULATION (CPR)

Annex ZA of the harmonized standard EN 14783:2013 –fully supported metal sheet and strip for roofing, external cladding and internal lining declares that a System 3 Attestation of Conformity (AoC) under the Construction Products Directive (CPD: 89/106/EEC) is required for all external fire performance declarations better than class  $F_{\text{roof}}(t1, t2, t3, t4)$ . Under the Construction Products Regulation (CPR: EU 305/2011) this corresponds with a System 3 of Assessment and Verification of Constancy of Performance (AVCP) as basis for a Declaration of Performance (DoP).

The classification assigned to the product in this report is appropriate to such a Declaration of Performance of the essential characteristics of the construction product by the manufacturer within the context of a System 3 Assessment and Verification of Constancy of Performance. Under the Construction Products Regulation a Declaration of Performance (DoP) is a requirement for affixing the CE marking.

PREPARED BY

APPROVED BY

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