



## PAVUS, a.s.

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NOTIFIED BODY 1391  
ACCREDITED CERTIFICATION BODY FOR  
PRODUCTS CERTIFICATION N° 3041

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# REACTION TO FIRE CLASSIFICATION REPORT

**Object of classification:** *Construction products excluding floorings and linear pipe thermal insulation products in accordance with EN 13501-1:2018, cl. 11  
EN 14782:2006, Annex C  
EN 14783:2013, Annex B*

**Classification report No:**

**PK1-01-19-073-E-1**

**Product name:**

*Coil Coated aluminium coils & sheets*

**Sponsor:**

**Luxe Coat S.r.l.**  
*Via degli Opifici snc  
67100 Bazzano - L'Aquila (AQ)  
Italia*

**Prepared by:**

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## 1. INTRODUCTION

- 1.1. This classification report defines the classification assigned to *Coil Coated aluminium coils & sheets* in accordance with the procedures given in EN 13501-1:2018 together with the procedures given in EN 14782:2006, Annex C, resp. EN 14783:2013, Annex B.
- 1.2. This classification report consists of six pages and may only be used or reproduced in its entirety.
- 1.3. This classification report replaces and cancels the classification report No. PK1-01-19-073-C-0 of 2019-12-13.

## 2. DETAILS OF CLASSIFIED PRODUCT

### 2.1. General

The product *Coil Coated aluminium coils & sheets* is manufactured by Luxe Coat S.r.l., Via degli Opifici snc, 67100 Bazzano - L'Aquila (AQ), Italia. It is a product in accordance with EN 14782:2006, respectively EN 14783:2013. They are continuously varnished coils and sheets from aluminium or aluminium alloy. The face side is coated with a primer and top coat, respectively top coat, a back coat is on the reverse side.

### 2.2. Product description

Sheet metal	Metal	Aluminium, aluminium alloys					
	Thickness (mm)	from 1.1					
	Density (kg/m <sup>3</sup> )	from 2,670					
Types of coat		1. PVDF 3 Layer	2. PVDF 2 Layer	3. PUR-PA	4. Polyester (HD SP)	5. Polyester Powder (PPC)	6. HD PUR
Primer	Type	SP (VL 3245) <sup>1)</sup>	SP (VL 3245) <sup>1)</sup>	SP (VL 3245) <sup>1)</sup>	SP (VL 3245) <sup>1)</sup>	-	PUR (VL 596)
	Thickness (µm)	10	10	20	20	-	20
	Basis weight in dry condition (g/m <sup>2</sup> )	16.75	16.75	33.50	33.50	-	21.00
Top coat	Type	PVDF (VL 3531) <sup>1)</sup>	PVDF (VL 3531) <sup>1)</sup>	PUR-PA (VL 3092) <sup>1)</sup>	PES (VL 3349) <sup>1)</sup>	PPC (VP 3080) <sup>1)</sup>	PUR (VP 3698) <sup>1)</sup>
	Thickness (µm)	20	20	25	25	70	25
	Basis weight in dry condition (g/m <sup>2</sup> )	37.40	37.40	44.00	34,00	91.20	26.25

Types of coat		1. PVDF 3 Layer	2. PVDF 2 Layer	3. PUR-PA	4. Polyester (HD SP)	5. Polyester Powder (PPC)	6. HD PUR
Top coat	Type	FEVE (VL 3339)	-	-	-	-	-
	Thickness ( $\mu\text{m}$ )	10	-	-	-	-	-
	Basis weight in dry condition ( $\text{g}/\text{m}^2$ )	16.80	-	-	-	-	-
Back coat	Type	SP EP (VL 232) <sup>1)</sup>	SP EP (VL 232) <sup>1)</sup>	SP EP (VL 232) <sup>1)</sup>	SP EP (VL 232) <sup>1)</sup>	SP EP (VL 232) <sup>1)</sup>	SP EP (VL 232) <sup>1)</sup>
	Thickness ( $\mu\text{m}$ )	4	4	4	4	4	4
	Basis weight in dry condition ( $\text{g}/\text{m}^2$ )	5.60	5.60	5.60	5.60	5.60	5.60

According to EN 13823:2010+A1:2014 the 5<sup>th</sup> type of coat was tested with the following parameters:

Sheet aluminium alloy: AlMg3, thickness of 1,1 mm, basis weight of 2,67  $\text{g}/\text{m}^2$

Coating system: back coat: SP EP (VL 232)<sup>1)</sup> measured average thickness of 4  $\mu\text{m}$

top coat: PPC (VP 3080)<sup>1)</sup> measured average thickness of 73  $\mu\text{m}$

<sup>1)</sup> The exact product name and the manufacturer is given in the test reports.

### 3. REPORTS AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

#### 3.1. Reports

Name of Laboratory Address Accreditation No.	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	Luxe Coat S.r.l. Via degli Opifici snc 67100 Bazzano - L'Aquila (AQ) Italia	Pr-19-1.214-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-19-1.215-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-19-1.216-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-19-1.217-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013

Name of Laboratory Address Accreditation No.	Name of sponsor	Report ref. No. Date of issue	Test method and date Field of application rules and date
PAVUS, a. s. Veseli nad Lužnicí ATL No. 1026	Luxe Coat S.r.l. Via degli Opifici snc 67100 Bazzano - L'Aquila (AQ) Italia	Pr-19-1.218-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-19-1.218-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-19-1.220-En 2019-11-08	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-20-1.156-En 2020-09-18	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-20-1.157-En 2020-09-18	EN ISO 1716:2018 EN 14782:2006 EN 14783:2013
		Pr-20-1.158-En 2020-09-15	EN 13823:2010+A1:2014 EN 14782:2006 EN 14783:2013

### 3.2. Results

Test method	Parameter	No. Tests	Results	
			Continuous parameter - mean	Compliance with parameters
EN 13823+A1 5 <sup>th</sup> type of coat	FIGRA <sub>0,2MJ</sub> (W/s) THR <sub>600s</sub> (MJ) LFS < edge of specimen SMOGR <sup>1)</sup> (m <sup>2</sup> /s <sup>2</sup> ) TSP <sub>600s<sup>1)</sup></sub> (m <sup>2</sup> ) No flaming droplets/ particles	3	7.3 0.5 - 0.0 36.5 -	≤ 20 (A1) ≤ 4 (A1) yes (A1) ≤ 30 (A1) ≤ 50 (A1) yes (A1)
EN ISO 1716 1 <sup>st</sup> type of coat PVDF (VL 3531) top coat + FEVE (VL 3339) top coat + SP (VL 3245) primer – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	3 × 3	0.58 + 0.37 + 0.30	-
EN ISO 1716 2 <sup>nd</sup> type of coat PVDF (VL 3531) top coat + SP (VL 3245) primer – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	2 × 3	0.58 + 0.30	-

Test method	Parameter	No. Tests	Results	
			Continuous parameter - mean	Compliance with parameters
EN ISO 1716 3 <sup>rd</sup> type of coat PUR-PA (VL 3092) top coat + SP (VL 3245) primer – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	2× 3	0.68 + 0.59	-
EN ISO 1716 4 <sup>th</sup> type of coat PES (VL 3349) top coat + SP (VL 3245) primer – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	2× 3	0.65 + 0.59	-
EN ISO 1716 5 <sup>th</sup> type of coat PPC (VP 3080) top coat – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	3	1.76	≤ 2.0 (A1)
EN ISO 1716 6 <sup>th</sup> type of coat PUR (VL 3698) top coat + PUR (VL 596) primer – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	2× 3	0.41 + 0.34	-
EN ISO 1716 All types of coat SP EP (VL 232) back coat – external non-substantial component	PCS <sup>2)</sup> (MJ/m <sup>2</sup> )	3	0.12	≤ 2.0 (A1)
EN ISO 1716 Sheet metal – substantial component	PCS (MJ/kg)	0 <sup>3)</sup>	0.00	≤ 2.0 (A1)
EN ISO 1716 Product as whole	PCS (MJ/kg)	-	≤ 0.68	≤ 2.0 (A1)
EN ISO 1182 Sheet metal	ΔT (°C) Δm (%) t <sub>r</sub> (s)	0 <sup>4)</sup>	≤ 30 ≤ 50 0	≤ 30 (A1) ≤ 50 (A1) 0 (A1)

1) The classical method of smoke calculation according to EN 13823:2010+A1:2014, Annex A, cl. A.6.1.2 it was used.

2) The gross heat of combustion is signed as  $Q_{PCS}$  according to EN ISO 1716:2018.

3) Metallic components shall not be tested. Their gross heat of combustion shall be deemed to be zero according to EN ISO 1716:2018.

4) Product is classified as reaction to fire class A1 without testing according to Commission Decision 96/603/ES as amended Commission Decisions 2000/605/ES and 2003/424/ES.

## 4. CLASSIFICATION AND FIELD OF APPLICATION

### 4.1. Reference of Classification

This classification has been carried out in accordance with EN 13501-1:2018.

### 4.2. Classification

The product *Coil Coated aluminium coils & sheets* in relation to its reaction to fire behaviour is classified:

**Reaction to fire classification: A1**

### 4.3. Field of application

This classification is valid for the following product parameters:

Grade of metal <sup>1)</sup> :	all grades of metal sheet
Density of metal sheet:	at least 2,670 kg/m <sup>3</sup>
Nominal thickness $t_n$ of metal <sup>1)</sup> :	at least 1.1 mm
Profile geometry of sheeting: flat, profiled or corrugated, or cassettes <sup>1)</sup> :	type tested only
Colour <sup>1)</sup> :	all colours
Type of coating <sup>1)</sup> :	tested coating type and where PCS and mass $\leq$ that of the tested organic coatings
Back coat:	basis weight in dry condition at most 5.6 g/m <sup>2</sup> gross heat of combustion PCS at most 0.12 MJ/m <sup>2</sup>
Primer + top coat(s):	basis weight in dry condition at most 91.2 g/m <sup>2</sup> (sum) gross heat of combustion PCS at most 1.76 MJ/m <sup>2</sup> (sum)

Types of coats with the stated basis weight in dry condition values according to table in cl. 2.2 of this report comply with this classification.

The classification is valid for the following end use applications:

Overlap between two successive profiles <sup>1)</sup> :	valid for all overlaps between 40 mm and 300 mm
Horizontal joint <sup>1)</sup> :	valid for end use conditions with or without this joint
Fixing for metal flashing <sup>1)</sup> :	valid for all spacing less than or equal to that tested, it means for spacing at most 360 mm

<sup>1)</sup> With respect to EN 14782:2006, Annex C, cl. C.3.2.2, Table C.2.

## 5. LIMITATIONS

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

This classification is valid, unless the conditions, under which it was issued, have been changed. The sponsor may request the issuing authority to review the influence of changes to the classification validity.

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