CERTIFICATIONS

EU Regulation 305/2011

This product is a natural slate rainscreen cladding system fixed with stainless steel nails or clips to a subframe made of an aluminium alloy, according to the ETAG (European Technical Approval Guideline), parts 1 and 2.

The CUPACLAD® natural slate rainscreen cladding system has successfully overcome the following tests:

- Slate **characterization**, *inline with UNE-EN 12326-1, ASTM C406 and ASTM E136*
- **Wind** load resistance, *inline with ETAG 034 and ASTM E330*
- **Impact** resistance, *inline with ETAG 034 and Cahier du CSTB 3534*
- Resistance to **vertical load**, *inline with ETAG 034*
- Resistance to **horizontal point loads**, *inline with ETAG 034*
- **Pull-through** resistance of **cladding element**, *inline with ETAG 034*
- **Pull-through** resistance of **fixings** from profiles, *inline with ETAG 034*
- **Hygrothermal** behaviour, *inline with ETAG 034*
- Determination of linear thermal **expansion coefficient**, *inline with UNE-EN 14581: 2006*
- Determination of real and apparent **density** and total and open porosity, *inline with EN 1936: 2007*

Our CUPACLAD® system also holds the following **certifications** in other countries:

- ETA 16/0351 CUPACLAD® 201 Vanguard, IETcc, Europe
- Agrément Certificate 18/5532 CUPACLAD® 101 and 201 Vanguard, BBA, United Kingdom
- Avis Technique 2.2/19-1800_V1 CUPACLAD® 201 Vanguard, CSTB, France
- Rapport d´expertise Deis/FaCeT-18-530 CUPACLAD® 101, CSTB, France

TECHNICAL SPECIFICATIONS

CUPACLAD

1 SLATE

Essential characteristics (slate)	CUPACLAD 101 Logic	CUPACLAD 101 Random	CUPACLAD 101 Parallel	CUPACLAD 201 Vanguard	Values of the standard	Harmonised standard
Slate size (mm x mm)	400 x 200	500 x 250 500 x 200 500 x 150	400 x 250	600 x 300	-	-
System Weight (kg/m²)	≤ 40			≤ 30	-	-
Deviation from declared length and width (mm)	Complies				< ±5	UNE-EN 12326-1
Nominal thickness (mm)	7,65		7,5		-	UNE-EN 12326-1
Deviation from nominal thickness	Complies				±25%	
Water absorption	Code W1				< 0,4%	UNE-EN 12326-1
Freeze thaw test	Complies				<0,6%	UNE-EN 12326-1
Thermal cycle test	Code T1				According to the standard	UNE-EN 12326-1
Carbonate content	Complies				<3%	UNE-EN 12326-1
SO_2 exposure test	Code S1				According to the standard	UNE-EN 12326-1
Non carbonate carbon content	Complies				<1,5%	UNE-EN 12326-1
External fire exposure / Reaction to fire	Code A1				According to the standard	UNE-EN 12326-1
Dangerous substances emission	None in conditions of use as roofing or external cladding				According to the standard	UNE-EN 12326-1
Linear thermal expansion ($ºC^{-1}$)	4 E-06				-	UNE.EN 14581:2006
Density ($kg.m^{-3}$)	2818		2815		-	UNE-EN 1936:2007

2 FIXING METHOD

Fixing between elements	Fixing method	Material	Dimension (mm)	Tensile strength (Rm)	Yield strength (Rp0,2)	Standard
CUPACLAD 101 (Logic/Random) slate to CUPACLAD 101 Profile	Self-drilling screw with flat head	A2	5,5x24 (14,5 Ø head)	≥ 500 MPa	≥ 210MPa	EN ISO 1478 EN ISO 4759-1-A EN ISO 3506-1:2010
CUPACLAD 201 slate to CUPACLAD 201 Top Profile						
CUPACLAD 101 Parallel slate to CUPACLAD 101 Profile			4,8x35 (12 Ø head)	≥ 660 MPa	≥ 460 MPa	
Horizontal to Vertical Profile	Self-drilling screw with hexagonal head	A2	5,5x25 (11 Ø head)	≥ 700 MPa	≥ 450MPa	EN ISO 15480:2000 EN ISO 3506-4:2010
Vertical Profile to brackets						
CUPACLAD 201 slate to CUPACLAD 201 Horizontal Profile	CUPACLAD 201 metal clip	A4	62,5x15	540-620 MPa	> 240 MPa	EN 10088-2:2008

TECHNICAL SPECIFICATIONS

CUPACLAD

3 PROFILES

• Horizontal Profile

Reference	CUPACLAD 101 Horizontal Profile	CUPACLAD 201 Horizontal Profile	CUPACLAD 201 Horizontal Top Profile
Dimensions (mm)	42x23	51,5x30,2	63x27
Thickness (mm)	1,5		
Length (mm)	3600	6000	
Alloy	6060 T6	6060 T5	6060 T6
Perimeter (mm)	Interior: 133 Exterior: 149 Total: 282	191	182
Weight (kg/m)	0,586	0,392	0,386
Section (mm^2)	217	145	143
xc (mm)	10.914	14,67	14,658
Ixc (cm^4)	1.274	1,54	1,783
yc (mm)	19.308	0,29	5,754
Iyc (cm^4)	4.302	1,515	3,096
Linear thermal expansion ($ºC^{-1}$)	23,4 E-06		

• Vertical profile

Reference	Vertical Profile L
Dimensions (mm)	50x60
Thickness (mm)	2
Length (mm)	6000
Alloy	6060 T6
Perimeter (mm)	220
Weight (kg/m)	0,584
Section (mm^2)	216
xc (mm)	12,11
Ixc (cm^4)	8,08
yc (mm)	42,88
Iyc (cm^4)	5,18
Linear thermal expansion ($ºC^{-1}$)	23,4 E-06

4 METAL BRACKETS

Reference	Fixed point brackets	Sliding point brackets
Dimension (mm)	120x40	60x40
Thickness (mm)	3	
Length (mm)	75-250	
Alloy	6060 T6	

Reference	120x40x75x3	120x40x150x3	120x40x250x3	60x40x75x3	60x40x150x3	60x40x250x3
Section (mm^2)	330	555	855	330	55	855
xc (mm)	31,75	34,48	35,89	31,75	34,48	35,89
Ixc (cm^4)	19,7	130	531	19,7	130	531
yc (mm)	26,07	61,12	110	26,1	61,12	110
Iyc (cm^4)	4,22	4,85	5,18	4,22	4,85	5,18