



AENOR Product Certificate



034/001952

AENOR certifies that the organization

CERAMICA MALPESA, S.A.

registered office AUTOVIA A-4, KM 303 23730 VILLANUEVA DE LA REINA (Jaen - España)

supplies **U Units Category I for unprotected masonry**

in compliance with UNE-EN 771-1:2011+A1:2016 (EN 771-1:2011+A1:2015)

Nº Technical Form 0830141 (see annex)

Production site AUTOVIA A-4, KM 303 23730 VILLANUEVA DE LA REINA (Jaen - España)

Certification scheme This Certificate has been granted in accordance with the stipulations of the Specific Rules RP034.01

First issued on 2017-06-29

Last issued on 2022-06-29

Validity date 2027-06-29

Rafael GARCÍA MEIRO
Chief Executive Officer



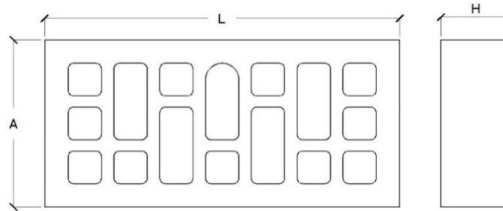
U UNITS CATEGORY I FOR UNPROTECTED MASONRY

TECHNICAL FORM Nº: 0830141

MANUFACTURER - MADE IN:	CERÁMICA MALPESA S.A. - VILLANUEVA DE LA REINA (JAÉN), SPAIN
PRODUCT DESCRIPTION:	U CLAY UNIT (G2) CLINKER R-40 OF 235 x 113 x 36-49-75
DESIGNATION CODE:	CL - U - I - 40 - 1330(D1) - 235x113x36-49-75 - C - L0,350 - T2 - R2 - E(3, 2) - N2200(D1) - G2 - FR40 - B0,15 - V5/10 - W≤6 - I≤0,6 - M≤0,3
BRAND NAME:	CHROME GREY KLINKER, GREEN GREY KLINKER, ANTHRACITE KLINKER, GRAPHITE KLINKER, BASALT KLINKER, BLACK BLUE KLINKER
SURFACE COLOURS:	WITHOUT SURFACE COLOUR
MASS COLOURS:	Grey and Black



PIECE SKETCH



TECHNICAL CHARACTERISTICS

Stamp and signature:

Details from the construction where it's placed the material named in this technical form: (For the final qualification, this technical form should be stamped and signed by the manufacturer)

Characteristic		Test method	Manufacturer ensured values	AENOR required values	
Appearance and structure	flakings and delaminations	Visual over 6 pieces	No pieces with flakings/delaminations		
	cracked units		≤ 1 cracked piece	≤ 1 cracked piece	
	chip units		≤ 1 piece with m.i.d between 7/15 mm	≤ 1 piece with m.i.d between 7/15 mm	
Dimensional tolerances	Mean value	UNE 67039 EX	No pieces with chips upper to 15 mm		
			length (l)	± 4	± 4
			width (w)	± 3	± 3
	Range		height (h)	± 2, ± 2, ± 2	± 2, ± 2, ± 2
			length (l)	± 5	± 5
			width (w)	± 3	± 3
Wall thickness (mm)	unprotected face shells	EN 772-16	≥ 15,0	≥ 15,0	
			protected face shells	≥ 10,0	≥ 10,0
			webs	≥ 5,0	≥ 5,0
Plane parallelism of bed faces (mm)			N/A		
Flatness of bed faces (mm)	Diagonals		l > 300 mm	N/A	N/A
			300 ≥ l ≥ 250 mm	≤ 3	≤ 3
		l ≤ 250 mm	≤ 2	≤ 2	
Percentage of voids (%)	Stated value (%)	EN 772-3	40	≤ 45	
	Tolerance (%)		Min: 36 - Máx: 44		
Volume of the largest void (% of (l x w x h))		EN 772-9	≤ 12,5	≤ 12,5	
Combined thickness of webs and shells (%)		EN 772-16	≥ 20	≥ 20	
Water absorption (%)		EN 772-21	≤ 6	≤ 6	
Water repellent treatment			NO		
Initial rate of water absorption (Kg/(m ² x min))		EN 772-11	≤ 0,6		
Damp proof courses (%)		EN 772-7	N/A		
Characteristic normalized compressive strength (N/mm ²)		EN 772-1	≥ 40,0 Orientation loading: Bed	≥ 10,0	
Density	Net dry (Kg/m ³)	EN 772-13	2.200		
	Gross dry (Kg/m ³)		1.330		
	Tolerance (%)		± 10		
Weight (g)	Reduction for density: NO	Annex D.2 RP 34.01	Minimum value ensured: 1.035 - 1.405 - 2.150	Minimum value required: 1.035 - 1.405 - 2.150	
Efflorescences		UNE 136029	No efflorescent	Slightly efflorescent	
Durability (Freeze/thaw)		UNE 67028 EX	N/A		
		EN 722-22	F2		
Thermal properties (Method)		Catalog CTE	Constructive Elements Catalog Value		
λ _{piece} (W/m x k)			0,35		
R _{wall} (m ² x k/w)			0,180 - 0,180 - 0,210		
Water vapour permeability - μ		Annex A EN 1745	5/10		
Content of active soluble salts		EN 772-5	S2		
Moisture movement (mm/m)		UNE 67036	≤ 0,30		
Fire reaction performance (% organic materials < 1 %)		EN 13501-1	CLASS A1		
Bond strength (N/mm ²)		Annex C EN 998-2	≥ 0,15		
SURFACE COLOURS:		Annex D.3 RP 34.01	N/A		
Accessory units			YES		
Remarks:					

Combined thickness declared corresponding at heat flow direction in the masonry
Different surface finishes are made (smooth, cork, rough, sandfaced, etc). They may have a notch in one or both headers and/or other types of perforations. Only plaquettes are certified as special shaped bricks.