

# AENOR

## AENOR Product Certificate Clay products for construction



**034/001976**

AENOR certifies that the organization

### **CERAMICA MALPESA, S.A.**

registered office	AUTOVIA A-4, KM 303 23730 VILLANUEVA DE LA REINA (Jaén - 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	0830143(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 RP 034.01
First issued on	2019-04-04
Validity date	2024-04-04

Rafael GARCÍA MEIRO  
Chief Executive Officer

Original Electronic Certificate

**AENOR INTERNACIONAL SA.U.**  
Génova, 6. 28004 Madrid. España  
Tel. 91 432 60 00.- www.aenor.com

Product certification body accredited by ENAC, number 01/C-PR271

## U UNITS CATEGORY I FOR UNPROTECTED MASONRY

### TECHNICAL FORM Nº: 0830143

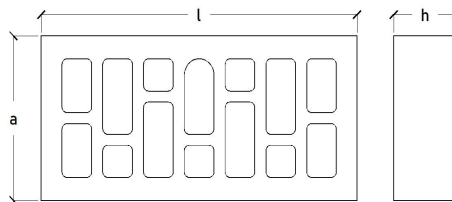
MANUFACTURER - MADE IN:	CERÁMICA MALPESA S.A. - VILLANUEVA DE LA REINA (JAÉN)
PRODUCT DESCRIPTION:	U CLAY UNIT (G2) R-20 OF 239 x 115 x 37-50-75
DESIGNATION CODE:	CL - U - I - 20 - 1060(D1) - 239x115x37-50-75 - C - L0,350 - T2 - R2 - E(3, 2) - N1750(D1) - G2 - FR40 - B0,15 - V5/10 - W≤6 - L≤0,6 - M≤0,3
BRAND NAME:	SIENA, DAMASCUS, ASH, TEIDE
SURFACE COLOURS:	WITHOUT SURFACE COLOUR
MASS COLOURS:	LIGHT GREY SHADES

AENOR



Certified Product

#### PIECE SKETCH



#### TECHNICAL CHARACTERISTICS

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		
		UNE 67039 EX	No pieces with chips upper to 25 mm			
Dimensional tolerances	Mean value	EN 772-16	T2	± 4	T2	± 4
				± 3		± 3
	Range			± 2, ± 2, ± 2		± 2, ± 2, ± 2
				± 5		± 5
Wall thickness (mm)	unprotected face shells		≥ 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	EN 772-20	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			YES			
			Water absorption without water repellent treatment: ≤ 17%			
Initial rate of water absorption (Kg/(m <sup>2</sup> x min))		EN 772-11	≤ 0,6			
Damp proof courses (%)		EN 772-7	N/A			
Characteristic normalized compressive strength (N/mm <sup>2</sup> )		EN 772-1	≥ 20,0	≥ 10,0		
Density	Gross dry (Kg/m <sup>3</sup> )		1.750			
	Net dry (Kg/m <sup>3</sup> )		1.060			
	Tolerance (%)		± 10	± 10		
Weight (g)	Reduction for density: YES	Annex D RP 34.01	Minimum value ensured: 975 - 1.325 - 1.970	Minimum value required: 975 - 1.315 - 1.970		
Efflorescences		UNE 67029 EX	No efflorescent	Slightly efflorescent		
Durability (Freeze/thaw)		UNE 67028 EX	F2 (25 cycles) Test carried out by cold store without ventilation			
Thermal properties (Method)		Catalog CTE	Constructive Elements Catalog Value			
λ <sub>piece</sub> (W/m x k)			0,35			
R <sub>wall</sub> (m <sup>2</sup> 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	(% organic materials < 1 %)	EN 13501-1	CLASS A1			
Bond strength (N/mm <sup>2</sup> )		Annex C EN 998-2	≥ 0,15			
Accessory units			YES			
Remarks:						

Combined thickness declared corresponding at heat flow direction in the masonry  
Different surface finishes are made (smooth, cork, rough, sandblasted, etc). They can be notched on one or both of the header and / or other types of perforations. Only platelets are certified as special pieces.

# AENOR