

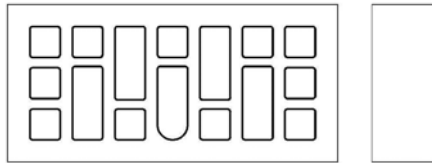
HD CLAY MASONRY UNITS CAT I (UNITS FOR UNPROTECTED MASONRY) TECHNICAL FORM N° 0830113

MANUFACTURER:	CERÁMICA MALPESA, S.A.
MADE IN:	VILLANUEVA DE LA REINA (JAÉN)
PRODUCT DESCRIPTION:	HD CLAY MASONRY UNIT R-40 OF 235 x 113 x HEIGHT
HEIGHTS (mm):	36-49-73
BRAND NAME:	BRIGHT KIMBERLY - KLINKER GRANADA / EBONY CHOCOLATE - KLINKER MARRON
MASS COLORATION:	GRANADA RED

AENOR

Producto
Certificado

PIECE SKETCH



TECHNICAL CHARACTERISTICS

Characteristic		Test Method	Manufacturer ensured values	AENOR required values	
Appearance & structure	exfoliations and stratifications	Visual over 6 pieces	None		
	cracked units		≤ 1 cracked unit	≤ 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 (mm)	Mean value	UNE 67039 EX	0 pieces with mean individual value > 15 mm		
			length (l)	± 4	± 4
			width (w)	± 3	± 3
	Range		height (h)	0,25 x h½	máx of (0,25 x h½) ó 2
			length (l)	± 5	± 5
			width (w)	± 3	± 3
height (h)	0,3 x h½	0,3 x h½			
Wall thickness (mm)	unprotected face shells	UNE-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)	Diagonal	UNE-EN 772-20	N/A	N/A	
			l > 300 mm	≤ 3	
			300 ≥ l ≥ 250 mm	≤ 2	
Percentage of voids (%)		UNE-EN 772-3	40	≤ 45	
Declared value (%)			Min: 36 - Máx: 44		
Tolerance (%)					
Volume of the largest void (% of gross)		UNE-EN 772-9	≤ 12,5	≤ 12,5	
Combined thickness of webs and shells (%)		UNE-EN 772-16	≥ 20	≥ 20	
Water absorption (%)		Annex C UNE-EN 771-1	≤ 6	≤ 6	
Damp proof courses (%)		UNE-EN 772-7	N/A		
Initial rate of water absorption (Kg/(m² x min))		UNE-EN 772-11	≤ 0,6		
Characteristic normalized compressive strength (N/mm²)		UNE-EN 772-1	≥ 40	≥ 40	
Bearing face: Bed					
Density	Gross dry (Kg/m³)		2.200		
	Net dry (Kg/m³)		1.340		
	Tolerance (%)		± 10		
Weight (g)	Reduction for density	NON	Annex D RP 34.01		
			Minimum value ensured per height: 1.065- 1.450-2.095		
Efflorescences		UNE 67029 EX	Non efflorescence	Slightly efflorescence	
Durability (Freeze/thaw)		UNE 67028 EX	F2 (25 cycles)		
Thermal properties (Method)			Test carried out in cold store with forced ventilation		
λpiece (W/m x k)		CTE Catalogue	Tabulated value		
Rwall (m² x k/w)			0,35		
			0,180 - 0,180 - 0,210		
Water vapour permeability - μ		Annex A UNE-EN 1745	50/100		
Content of active soluble salts		UNE-EN 772-5	S2		
Moisture movement (mm/m)		UNE 67036	≤ 0,30		
Fire reaction		(%organic material < 1 %)	UNE-EN 13501-1		
Bond strength (N/mm²)		Annex C UNE-EN 998-2	≥ 0,15	≥ 0,15	
Surface colours		Anexo D RP 34.01	NON		
Water repellent treatment			NON		
Accessory units			YES		
Remarks					

The combined thickness stated corresponds to the direction of heat flow in the wall. The model Klinker Granada and Klinker Marron can have superficial treatment (flashed). Different surface finishes available (flat, cork, rough, etc). Bricks can be manufactured in one or two widths, or other kind of perforations.

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)