
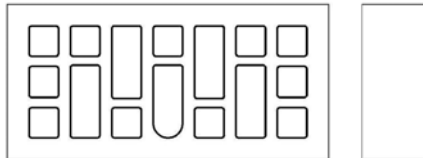


## HD CLAY MASONRY UNITS CAT I (UNITS FOR UNPROTECTED MASONRY) TECHNICAL FORM N° 0830107

MANUFACTURER: <b>CERÁMICA MALPESA, S.A.</b>	 <b>AENOR</b> Producto Certificado
MADE IN: <b>BAILÉN</b>	
PRODUCT DESCRIPTION: <b>HD CLAY MASONRY UNIT R-20 OF 239 x 117 x HEIGHT</b>	
HEIGHTS (mm): <b>37-50-75</b>	
BRAND NAME: <b>LUMINATE ALUMINIUM - LUMINATE SNOW - VENTURE WHEAT - VENTURE SHAPPIRE - VENTURE BURGUNDY</b>	
<b>EBONY SMOKE - VENTURE JADE / SEVILLA ESMALTADO</b>	
MASS COLORATION: <b>LIGHT SALMON</b>	

### 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		
		UNE 67039 EX	0 pieces with mean individual value > 15 mm			
Dimensional tolerances (mm)	Mean value	UNE-EN 772-16	T2	± 4	T2	± 4
				± 3		± 3
	Range		0,25 x h <sup>1/2</sup>	máx of (0,25 x h <sup>1/2</sup> ) ó 2		
			± 5	R2	± 5	
± 3	± 3					
0,3 x h <sup>1/2</sup>	0,3 x h <sup>1/2</sup>					
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)	Diagonal	UNE-EN 772-20	N/A			
			I > 300 mm	N/A		
			300 ≥ I ≥ 250 mm	≤ 3	≤ 3	
I ≤ 250 mm	≤ 2	≤ 2				
Percentage of voids (%)	Declared value (%)	UNE-EN 772-3	≤ 45			
	Tolerance (%)		Min: 36 - Máx: 44			
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	≤ 16	≤ 16		
Damp proof courses (%)		UNE-EN 772-7	N/A			
Initial rate of water absorption (Kg/(m <sup>2</sup> x min))		UNE-EN 772-11	≤ 0,9			
Characteristic normalized compressive strenght (N/mm <sup>2</sup> )		UNE-EN 772-1	≥ 20,0	≥ 10,0		
Density	Gross dry (Kg/m <sup>3</sup> )		1.810			
	Net dry (Kg/m <sup>3</sup> )		1.120			
	Tolerance (%)		± 10			
Weight (g)	Reduction for density	NON Annex D RP 34.01	Mimimun value ensured per height: 1.065-1.450-2.150	Minimum value per height: 1.065-1.435-2.150		
Efflorescences		UNE 67029 EX	Non efflorescence	Slightly efflorescence		
Durability (Freeze/thaw)		UNE 67028 EX	F2 (25 cycles) Test carried out in cold store with forced ventilation			
Thermal properties (Method)		CTE Catalogue	Tabulated value			
λ <sub>piece</sub> (W/m x k)			0,35			
Water vapour permeability - μ		Annex A UNE-EN 1745	5/10			
Content of active soluble salts		UNE-EN 772-5	S2			
Moisture movement (mm/m)		UNE 67036	≤ 0,30			
Fire reaction		UNE-EN 13501-1	GRADE A1			
Bond strenght (N/mm <sup>2</sup> )		Annex C UNE-EN 998-2	≥ 0,15	≥ 0,15		
Surface colours		Anexo D RP 34.01	YES			
Water repellent treatment			YES			
Accesory units			YES			

**Remarks**  
Different colours available (white, blue, green, grey, aluminium, cream, etc). 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)