# AENOR Product Certificate

034/001976

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) |
| N° 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 AENOR Specific Rules RP 034.01 |
| | This certificate supersedes 034/001976, dated 2024-04-04 |
| First issued on | 2019-04-04 |
| Modified on | 2025-12-12 |
| Validity | 2030-12-12 |

Rafael GARCÍA MEIRO
CEO

ENAC
CERTIFICACIÓN
ISO 17065
Nº1 / C-PR271

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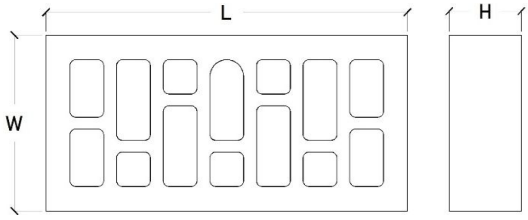
# U UNITS CATEGORY I FOR UNPROTECTED MASONRY
# TECHNICAL FORM Nº: 0830143

| | |
|---|---|
| MANUFACTURER - MADE IN: | CERÁMICA MALPESA S.A. - VILLANUEVA DE LA REINA (JAÉN), SPAIN |
| 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 - F1 - T2 - R2 - E(3, 2) - N1750(D1) - G2 - FR40 - B0,15 - V5/10 - W≤6 - I≤0,6 - M≤0,3 |
| BRAND NAME: | SIENA, DAMASCUS, ASH, TEIDE |
| SURFACE COLOURS: | WITHOUT SURFACE COLOUR |
| MASS COLOURS: | LIGHT GREY SHADES |

## 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 | | UNE 67039 EX | ≤ 1 piece with m.i.d between 7/15 mm | ≤ 1 piece with m.i.d between 7/15 mm |
| | | | | No pieces with chips upper to 15 mm | |
| Dimensional tolerances | Mean value | lenght (l) | EN 772-16 | T2: ± 4 | T2: ± 4 |
| | | widht (w) | | T2: ± 3 | T2: ± 3 |
| | | height (h) | | T2: ± 2, ± 2, ± 2 | T2: ± 2, ± 2, ± 2 |
| | Range | lenght (l) | | R2: ± 5 | R2: ± 5 |
| | | widht (w) | | R2: ± 3 | R2: ± 3 |
| | | height (h) | | R2: ± 2, ± 2, ± 3 | R2: ± 2, ± 2, ± 3 |
| 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 | l > 300 mm | EN 772-20 | 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 (%) | | | Mín: 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<br>Water absorption without water repellent treatment: ≤ 17% | |
| Initial rate of water absorption (Kg/(m² x min)) | | | EN 772-11 | ≤ 0,6 | |
| Damp proof courses (%) | | | EN 772-7 | N/A | |
| Characteristic normalized compressive strength (N/mm²) | | | EN 772-1 | ≥ 20,0<br>Orientation loading: Bed | ≥ 10,0 |
| Density | Net dry (Kg/m³) | | EN 772-13 | 1.750 | |
| | Gross dry (Kg/m³) | | | 1.060 | |
| | Tolerance (%) | | | ± 10 | ± 10 |
| Weight (g) | Reduction for density: | YES | Annex D.2 RP 34.01 | Minimum value ensured:<br>975 - 1.325 - 1.970 | Minimun value required:<br>975 - 1.315 - 1.970 |
| Efflorescences | | | UNE 136029 | No efflorescent | Slightly efflorescent |
| Durability (Freeze/thaw) | | | UNE 67028 EX | N/A | |
| | | | EN 722-22 | N/A<br>F1 (25 cycles) | |
| Thermal properties (Method) | | | Catalog CTE | Constructive Elemens Catalog Value | |
| λpiece (W/m x k) | | | | 0,35 | |
| Rwall (m² 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/mm²) | | | 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, 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.

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)

Stamp and signature: