

# TECHNICAL SHEET

<b>BRAND</b>	<b>CERAMICAS APARICI, S.A.</b> Ctra. Castellón - Alcora, km 12 12130 San Juan de Moró (Castellón) SPAIN
<b>PRODUCT</b>	<b>NAME: DANUVE GUSTAV &amp; OTTO NATURAL</b> <b>SIZE (cm): 59,2 x 59,2</b>  <b>Note:</b> This model has a preincision format 200 x 200 mm which has a width of 1,6 mm.
<b>TYPE OF PRODUCT</b>	<b>TYPE: Dry-pressed ceramic tiles, with water absorption E<sub>b</sub> ≤ 0,5% PORCELAIN TILE</b> <b>USE: For internal and external walls and floorings</b> <b>GROUP BI<sub>a</sub></b>
<b>REFERENCED RULES</b>	<b>ISO-13006:2012 and UNE EN 14411:2013</b>

Characteristics	Test Method	Requirements	Values Compliance
<b>A) DIMENSIONS AND SURFACE QUALITY</b>			
<b>Length and width</b>			
The work size shall be chosen as follows for:			
a) modular tiles:	EN ISO 10545-2	In order to allow a nominal joint width of between 2 and 5 mm So that the difference between the work size and the nominal size is not more than 2% (maximum 5 mm)	PASS
b) non-modular tiles:  The permissible deviation of the average size for each tile (2 or 4 sides) from the work size (W) Requirements for nominal size N 7cm≤N<15cm N≥ 15 cm	EN ISO 10545-2	± 0,9 mm ± 2,0 mm ó ± 0,6%	PASS
<b>Thickness</b>			
a) The thickness shall be specified		Declared thickness	SEE BOX
b) The permissible deviation, of the average thickness of each tile from the work size thickness Requirements for nominal size N 7cm≤N<15cm N≥ 15 cm	EN ISO 10545-2	± 0,5 mm ± 0,5 mm ó ± 5%	PASS

<b>Straightness of sides (facial sides)</b>			
The maximum permissible deviation from straightness, related to the corresponding work sizes. Requirements for nominal size N $7\text{cm} \leq N < 15\text{cm}$ $N \geq 15\text{ cm}$	EN ISO 10545-2	$\pm 0,75\text{ mm}$ $\pm 1,5\text{ mm ó } \pm 0,5\%$	<b>PASS</b>
<b>Rectangularity</b>			
The maximum permissible deviation from rectangularity, related to the corresponding work sizes. Requirements for nominal size N $7\text{cm} \leq N < 15\text{cm}$ $N \geq 15\text{ cm}$	EN ISO 10545-2	$\pm 0,75\text{ mm}$ $\pm 2,0\text{ mm ó } \pm 0,5\%$	<b>PASS</b>
<b>Surface flatness</b>			
The maximum permissible deviation from flatness  a) centre curvature, related to diagonal calculated from the work sizes. Requirements for nominal size N $7\text{cm} \leq N < 15\text{cm}$ $N \geq 15\text{ cm}$	EN ISO 10545-2	$\pm 0,75\text{ mm}$ $\pm 2,0\text{ mm ó } \pm 0,5\%$	<b>PASS</b>
b) edge curvature, related to the corresponding work sizes. Requirements for nominal size N $7\text{cm} \leq N < 15\text{cm}$ $N \geq 15\text{ cm}$	EN ISO 10545-2	$\pm 0,75\text{ mm}$ $\pm 2,0\text{ mm ó } \pm 0,5\%$	<b>PASS</b>
c) warpage, related to diagonal calculated from the work sizes. Requirements for nominal size N $7\text{cm} \leq N < 15\text{cm}$ $N \geq 15\text{ cm}$	EN ISO 10545-2	$\pm 0,75\text{ mm}$ $\pm 2,0\text{ mm ó } \pm 0,5\%$	<b>PASS</b>
<b>Surface quality</b>			
	EN ISO 10545-2	A minimum of 95% of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles.	<b>PASS</b>
<b>B) PHYSICAL PROPERTIES</b>			
<b>Water absorption (in % by mass)</b>			
	EN ISO 10545-3	$E_b \leq 0,5\%$ <b>Individual maximum 0,6%</b>	$E_b \leq 0,2\%$
<b>Breaking strength, for:</b>			
a) Thickness $\geq 7,5\text{ mm}$	EN ISO 10545-4	Not less than 1.300 N	$> 2.200\text{ N}$

<b>Flexural tensile strength or modulus of rupture</b>			
	EN ISO 10545-4	Minimum 35 N/mm <sup>2</sup> Individual minimum 32 N/mm <sup>2</sup>	> 45 N/mm <sup>2</sup>
<b>Abrasion resistance</b>			
Resistance to surface abrasion of <b>glazed tiles</b> intended for use on floors (PEI)	EN ISO 10545-7	Abrasion class	<b>GUSTAV CLASS 4 OTTO CLASS 4</b>
<b>Coefficient of linear thermal expansion</b>			
from ambient temperature to 100° C	EN ISO 10545-8	Declared Value	<b>6.1- 6.9 x10<sup>-6</sup> (°C<sup>-1</sup>)</b>
<b>Thermal shock resistance</b>			
	EN ISO 10545-9	Pass according to EN ISO 10545-9	<b>PASS</b>
<b>Crazing resistance</b>			
Glazed tiles	EN ISO 10545-11	Pass according to EN ISO 10545-11	<b>PASS</b>
<b>Frost resistance</b>			
Interior uses	EN ISO 10545-12	Pass according to EN ISO 10545-12	<b>PASS</b>
Exterior uses			<b>PASS</b>
<b>Slip resistance</b>			
Ramp test	UNE EN 16165 Annex B (DIN 51130)	-	<b>R10</b>
<b>Bond strength/adhesion , for:</b>			
cementitious adhesives	EN 12004:2007 +A1: 2012, 4.1	Declared Value	<b>Type C2 &gt;1 N/mm<sup>2</sup></b>
<b>Reaction to fire</b>			
		Class A1 FL/A1	<b>A1 FL/A1</b>
<b>C) CHEMICAL PROPERTIES</b>			
<b>Resistance to chemicals</b>			
Resistance to household chemicals and swimming pool slats	EN ISO 10545-13	Minimum GB	<b>GA</b>
<b>Resistance to chemicals</b>			
Glazed tiles	EN ISO 10545-14	Minimum 3	<b>5</b>