

## TECHNICAL CHARACTERISTICS OF PRODUCT

The characteristics of the product specified in this technical report meet the specification and test methods according to norm NBR 13818 and ISO 13006 requirements.

### PRODUCT SPECIFICATION

<b>Reference</b>	<b>PIETRA ALPI AC 20X30#</b>
<b>Product Code</b>	8032517
<b>Nominal Size (N)</b>	20 cm x 30 cm
<b>Work Size (W)</b>	200,0 mm x 300,0 mm
<b>Thickness</b>	7,2 mm
<b>Water Absorption</b>	BIII (> 10,0%)
<b>Shade Variation</b>	V3
<b>Application Joint</b>	2,0 mm
<b>Coverage Area</b>	1,50 m <sup>2</sup> /cx
<b>Number of pieces per box</b>	25

### DIMENSIONAL CHARACTERISTICS

Deviation on W in relation to N (%)	± 2,00 (max. ±5,0 mm)
Deviation on r1 in relation to W (%)	± 0,50 (max. ±2,0 mm)
Deviation on e in relation to eW (%)	± 10,0 (max. ±0,5 mm)
Wedging of size - deviation in relation to W (%)	± 0,30 (max. ±1,5 mm)
Rectangularity - deviation in relation to W (%)	± 0,50 (max. ±2,0 mm)
Edge curvature - deviation in relation to W (%)	-0,30 / +0,50 (max. -1,50 / +2,00mm)
Center Curvature - deviation in relation to W(%)	-0,30 / +0,50 (max. -1,50 / +2,00mm)
Warpage - deviation in relation to W (%)	± 0,50 (max. ±2,0 mm)

#### Definition - Dimensional Characteristics

Wedging of size: occurs when the sides of the piece show a curvature either concave or convex.

Rectangularity: identifies if the tile is set square or not.

Edge curvature: occurs when one of the sides of the piece presents curvature, compared to the standard piece.

Center curvature: occurs when the center of the piece presents curvature, compared to the standard piece.

Warpage: is the difference of one of the four sides (end) related to the three sides leaned on the equipment, compared to the standard piece.

N - Nominal size (cm).

W - Work size (mm).

r - Average size of one piece (average of two sides if rectangular format and four sides when square format).

R - Average size of 10 pieces (average of two sides if rectangular format and four sides when square format).

### PHYSICAL PROPERTIES

Flexion resistance (N/mm <sup>2</sup> )	≥ 15
Breaking strength (N)	≥ 200
Moisture expansion (mm/m)	≤ 0,60
Crazing resistance	Guaranteed

### CHEMICAL PROPERTIES

Resistance to household chemicals and swimming pool salts - Ammonium Chloride 100g/L	≥GB
Resistance to household chemicals and swimming pool water - Sodium Hypochlorite 20mg	≥GB
Acid - low concentration - chloridric acid 3%	≥GLC
Acid - low concentration - citric acid 100g/L	≥GLC
Alkalis - low concentration - potassium hydroxide 30g/L	≥GLC
Resistance to staining - Green Chrome (40% in oil)	≥Class 3
Resistance to staining - Olive Oil	≥Class 3
Resistance to staining - Alcohol iodine (13g / L)	≥Class 3

*Definition - Chemical Resistance*

Codes of classification: XYZ (Ex: GHA)

X – One letter: G or U, glazed or unglazed

Y – One letter: H or L, high or low concentration

Z – One letter: Chemical resistance class:

A = High

B = Medium

C = Low

*Definition - Resistance to Stain*

Class 5 - The stain can be removed easily.

Class 4 - The stain can be removed with a light chemical product.

Class 3 - The stain can be removed with a strong chemical product.

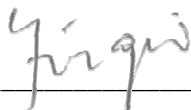
Class 2 - The stain can be removed with solvent.

Class 1 - The stain can not be removed.

**Attention:**

- Sand may produce scratches on any type of surface covering (stone, wood, vinyl or ceramic tiles). Therefore, ceramic tiles are not warranted against scratches, especially concerning glossy surface products.
- Special care is recommended during the application and its use
- In residential areas, we recommend to protect the base of furniture and appliances.
- Product manufactured by the wet process.
- Product with Class I combustibility, according to NBR 15575.

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