SPECIFICATIONS of: LUMEN (20MM)

Supply of porcelain stoneware Porcelaingres.

1. Product and process features

Porcelain stoneware slabs classifiable as group Impervious P1, frost-proof slabs that resist to chemical attacks, achieved through dry-forming of high-quality mixtures made up of atomized and mixed natural raw materials (kaolin minerals, feldspars).

2. Compliance with Standards

The material, in compliance with the requirements of American standards ANSI A 137.1: June 2021, ANSI A326.3-2021 and ASTM Section 15 Volume 15.02, must meet the following technical features:
ASTM C373 – 18 (Water absorption)
ASTM C499 – 20 (Facial dimension and Thickness)
ASTM C485 – 16 (Warpage)
ASTM C502 – 16 (Wedging)
ASTM C482 – 20 (Bond Strength)
ASTM C648 – 20 (Breaking Strength)
ASTM C1505 – 20 (Modulus of Rupture)
ASTM C1895 – 20 (Hardness - Mohs)
ASTM C 1243 – 93 (Deep Abrasion)
ASTM C1026 – 13 (Frost Resistance)
ASTM C650 – 20 (Chemical Resistance)
ASTM C1378 – 20 (Stain Resistance)
ANSI A 326.3 – 2021 (DCOF).
The Quality Control System implemented by the company guarantees the mentioned above features in accordance with UNI-EN-ISO 9001:2015 standards.
The slabs have been checked and evaluated by an independent third-party Body which certifies their compliance to the LEED_BREEAM.

3. Commercial Description of the Product

Company	Porcelaingres
Collection	Lumen (20MM)
Product	Lumen Dusk, Lumen Frost, Lumen Gravel, Lumen Shore
Finish	Antislip
Rectified/Unrectified	Rectified
Size in inch	48”x48”, 24”x24”
Size in cm	120x120 cm, 60x60 cm,
Thickness in mm	20 mm

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Dimensions

Materials supplied in Mono-caliber.

Nominal Size in mm	Working Size in mm
1200x1200mm, 600x600mm	1195.8x1195.8mm, 595.8x595.8 mm

4. Technical Features

Chemical Physical	Norms	Required Standards	Average ICG Production Values [1]
Water absorption	ASTM C 373 - 18	Impervious ≤0.5 %	≤0.1 %
Thickness Variation	ASTM C 499 - 20	± 0.02 inch	± 0.02 inch
Facial Dimension		± 0.25 %	± 0.25 %
Warpage Average Diagonal	ASTM C 485 - 16	± 0.40 %	± 0.40 %
Warpage Average Edge	ASTM C 485 - 16	± 0.40 %	± 0.40 %
Wedging	ASTM C 502 - 16	± 0.25 %	± 0.25 %
Bond Strength	ASTM C 482 - 20	≥ 50 psi	≥ 50 psi
Breaking Strength	ASTM C 648 - 20	≥ 275 lbf	≥ 275 lbf
Hardness (Mohs)	ASTM C 1895 - 20	Range 0 - 10	≥ 7 [3]
Frost Resistance	ASTM C 1026 - 13 (2018)	No sample must show alterations to surface	No evidence of damage
Chemical Resistance	ASTM C 650 - 20	Range A / E	Class A [4]
Stain Resistance	ASTM C 1378 - 20	Range A / E	Class A [4]
Slip Resistance (DCOF)	ANSI A 326.3 -2021	≥ 0.42	≥ 0.70 [2]
Aesthetic Classification	Visual Evaluation Shade & Texture	Range V1 / V4	V3

Note:

(1) -> All values given are for textured/natural finish. Values for different finishes are available upon request.

(2) -> DCOF results referring to textured/natural products are performed with the WET test, while for polished, semi-polished and silky the DCOF test is performed DRY. The values of dynamic friction coefficient (DCOF) shown in the catalogue, web site or sales documents in general, are purely indicative and not binding. Any specific requirement must be confirmed by us at the time of ordering and, in any case, before installation.

(3) -> Mohs result referring to textured/natural finish. For polished/silky finish: ≥ 6

(4) -> Chemical and stain resistance are referring to textured/natural finish. For polished/silky finish, tests are provided on request

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