

## Tender specifications

### TERRAZZO collection

---

Supply of Panaria porcelain stoneware tiles for walls and floors.

---

#### Product characteristics

Panaria Ceramica glazed porcelain stoneware tiles, composed of a very fine mixture of quality clay with the addition of feldspar, quartz and kaolin, manufactured by dry pressing of atomized powders and subsequently sintered by industrial firing at temperatures above 1200°C.

The complete vitrification of the tiles allows for a compact, non-absorbent, frost-proof product, resistant to bending, impacts, staining, chemical attack and thermal shock.

---

#### Compliance with ANSI A 137.1

The Terrazzo collection is in compliance with the regulations required for first quality products in USA ANSI A137.1 – Table 10: Porcelain tile.

---

#### Quality and environmental certifications

The conservation of the product characteristics is guaranteed by the Quality Management System put into practice by Panaria - Ceramica Industrial in its plants and certified in accordance with EN ISO 9001:2015. The collection helps to meet the criteria for obtaining LEED credits. The product contains no VOC (volatile organic compounds) and has obtained the GREENGUARD GOLD certification.

---

Commercial description of the product			
Company	PANARIA CERAMICA		
Country of origin	PORTUGAL		
Collection	TERRAZZO		
Colours	White, Grey, Tortora, Smoke		
Nominal Sizes	36"x36" NAT RECT	24"x24" NAT RECT	24"x48" NAT RECT
Surface Finish	GLAZED		
Surfaces Processing	NATURAL (NAT)		
Edges	RECTIFIED (RECT),		
Thickness	9 mm 8 mm		

## Tender specifications

### TERRAZZO collection

#### Technical features

Product type: glazed porcelain stoneware – Class P1 (GL)

According to: ANSI A137.1

Technical Characteristics	Test Method (ASTM)	Value required for Porcelain Tile ANSI A137.1	Average Values
Water Absorption	ASTM C373	≤ 0.5 %	Conforms
Breaking Strength	ASTM C648	≥ 250 lbf	≥ 330 lbf
Surface abrasion resistance	ASTM C1027	As indicated by manufacturer	PEI 4
Linear Thermal Expansion	ASTM C372	Not Required	$\alpha \leq 4.4 \times 10^{-6} \text{ } ^\circ\text{F}^{-1}$
Thermal Shock Resistance	ASTM C484	No sample must show visible signs	Conforms
Chemical Resistance	ASTM C650	As indicated by manufacturer	As Reported
Stain Resistance	ASTM C1378	As indicated by manufacturer	As Reported
Freeze/Thaw Resistance	ASTM C1026	No sample must show visible signs	Conforms
Bond Strength	ASTM C482	≥ 50 PSI (0.34 MPa)	Conforms
Crazing Resistance	ASTM C424	As reported	Conforms
Warpage Edge	ASTM C485	Rectified: max ±0.40% or max ±0.05"up to 24x24"; max ±0.07"for tiles larger than 24x24" Calibrated: max ±0.50% or max ±0.07"	Conforms
Warpage Diagonal	ASTM C485	Rectified: max ±0.40% or max ±0.07" Calibrated: max ±0.50% or max ±0.07"	Conforms
Nominal dimensions	ASTM C485	Rectified: -3.0%/+2.0% of nominal dimensions Calibrated: max ±3.0% of nominal dimensions	Conforms
Caliber range	ASTM C485	Rectified: max ±0.25% or max ±0.03" Calibrated: max ±0.50% or max ±0.08"	Conforms
Wedging	ASTM C502	Rectified: max ±0.25% or max ±0.03" Calibrated: max ±0.50% or max ±0.08"	Conforms
Thickness	ASTM C499	Max range 0.040 inch (1.02 mm)	max ± 0.030 inch
Surface Hardness	Mohs Scale	As reported	7 Mohs
Dynamic Coefficient of Friction (DCOF)	A326.3	A326.3	<input checked="" type="checkbox"/> Natural: Interior, Wet Plus (IW+)
Shade Variation	ANSI A137.1	As indicated by manufacturer	V3 Moderate Variation
Flame spread	ASTM E84	-	Class A