

Series: True Porcelain Tile

COLOURED-BODY GLAZED STONEWARE

INTENDED USE: NATURAL    ANTI-SLIP / STRUCTURED ANTI-SLIP 

WARM WHITE



Stocked

12"x24" - 30x60.4 cm
 NATURAL
 ANTI-SLIP
 Anti-Slip surface special order only

LIGHT BEIGE



Stocked

12"x24" - 30x60.4 cm
 NATURAL
 ANTI-SLIP
 Anti-Slip surface special order only

WARM WHITE



20 mm
Special Order

24"x24" - 60.7x60.7 cm
 STRUCTURED ANTI-SLIP

LIGHT BEIGE



20 mm
Special Order

24"x24" - 60.7x60.7 cm
 STRUCTURED ANTI-SLIP

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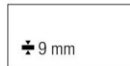
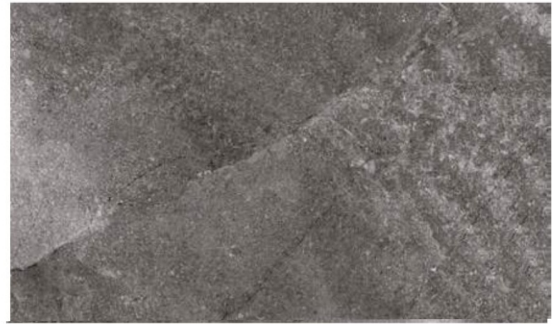
MILD GREY



Stocked

12"x24" - 30x60.4 cm
 NATURAL
 ANTI-SLIP
 Anti-Slip surface special order only

SOFT BLACK



Stocked

12"x24" - 30x60.4 cm
 NATURAL
 ANTI-SLIP
 Anti-Slip surface special order only

MILD GREY



20 mm
Special Order

24"x24" - 60.7x60.7 cm
 STRUCTURED ANTI-SLIP

Stocked



3-1/8" x 12 Bullnose

APGMT300 LIGHT BEIGE
 APGMT300 MILD GREY
 APGMT320 SOFT BLACK
 APGMT330 WARM WHITE

Series: True Porcelain Tile

DECOS

Stocked



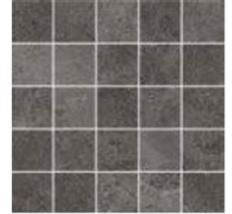
MOSAIC 25 pcs
WARM WHITE
 12"x12" - 30x30 cm
 NATURAL
 ± 9 mm



MOSAIC 25 pcs
LIGHT BEIGE
 12"x12" - 30x30 cm
 NATURAL
 ± 9 mm



MOSAIC 25 pcs
MILD GREY
 12"x12" - 30x30 cm
 NATURAL
 ± 9 mm



MOSAIC 25 pcs
SOFT BLACK
 12"x12" - 30x30 cm
 NATURAL
 ± 9 mm

TRIM PIECES Stocked



BULLNOSE
 3 1/8"x12" - 8x30 cm
 NATURAL
 ± 9 mm

All colors available

Special Order



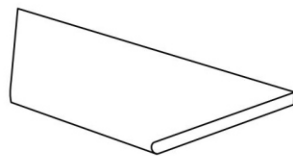
COVE BASE
 6"x12" - 15x30 cm
 NATURAL
 ± 9 mm



20 mm

TRIM PIECES

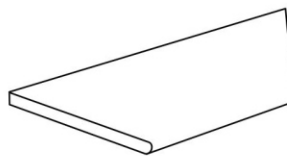
Special Order



POOL COPING 45 ANGLE R
ROUNDED EDGE
 12"x24" Rect - 30x60 cm
 STRUCTURED ANTI-SLIP
 ± 20 mm

Colors available:
 Warm White - Light Beige - Mild Grey

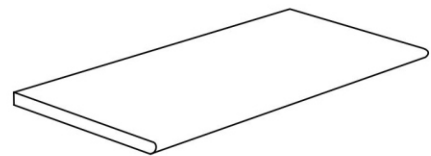
Special Order



POOL COPING 45 ANGLE L
ROUNDED EDGE
 12"x24" Rect - 30x60 cm
 STRUCTURED ANTI-SLIP
 ± 20 mm

Colors available:
 Warm White - Light Beige - Mild Grey

Special Order



POOL COPING ROUNDED EDGE
 12"x24" Rect - 30x60 cm
 STRUCTURED ANTI-SLIP
 ± 20 mm

Colors available:
 Warm White - Light Beige - Mild Grey

Series: True Porcelain Tile

TECHNICAL FEATURES

COLOURED-BODY GLAZED STONEWARE according to ANSI A137.1 (Glazed Porcelain Tiles - P1 Class)

TECHNICAL FEATURES	TEST METHOD	REQUIRED VALUES	TRUE AVERAGE VALUES
 WATER ABSORPTION	ASTM C373	≤ 0,5%	CONFORMS
 BREAKING STRENGTH	ASTM C648	≥ 250 lbf	350 lbf 9 mm 2,800 lbf 20 mm
 SURFACE ABRASION RESISTANCE	ASTM C1027	As indicated by manufacturer	PEI 5: WARM WHITE, LIGHT BEIGE, MILD GREY PEI 4: SOFT BLACK
 LINEAR THERMAL EXPANSION	ASTM C372	No provision	$\alpha \leq 8 \times 10^{-6} \text{ }^{\circ}\text{C}^{-1}$ $\alpha \leq 4.4 \times 10^{-6} \text{ }^{\circ}\text{F}^{-1}$
 STAIN RESISTANCE	ASTM C1378	As indicated by manufacturer	A RESISTANT
 CHEMICAL RESISTANCE(*)	ASTM C650	As indicated by manufacturer	A RESISTANT
 FROST RESISTANCE	ASTM C1026	As indicated by manufacturer	RESISTANT
 BOND STRENGTH	ASTM C482	≥ 50 PSI	CONFORMS
 SLIP RESISTANCE	DIN EN 16165 - Annex B	-	R11 Anti-Slip**** - Structured 20 mm Anti-Slip
	DIN EN 16165 - Annex A	-	C (A+B+C) Anti-Slip**** - Structured 20 mm Anti-Slip
	ANSI A326.3	-	ID - DCOF ≥ 0.42 (dry) Natural IW - DCOF ≥ 0.42 (wet) Natural IW+ Natural**** - Anti-Slip**** EW Anti-Slip**** - Structured 20 mm Anti-Slip
 SHADE VARIATION	ANSI A137.1	As indicated by manufacturer	V2 Slight variation
 FLAME SPREAD	ASTM E84	-	Class A
 THERMAL CONDUCTIVITY	EN 12524	-	$\lambda = 1,3 \text{ W/m }^{\circ}\text{K} / 0,7 \text{ BTU/ft h }^{\circ}\text{F}$
 RECOMMENDED MINIMUM JOINT(**)	NOT RECT (INDOOR)	-	3/16" - 4,7 mm approx
	OUTDOOR	-	3/16" - 4,7 mm approx.
 THICKNESS	SIZES		
	12"x24" - 30x60.4 cm	-	9 mm
	24"x24" - 60.7x60.7 cm	-	20 mm

(*) Excluding hydrofluoric acid and its derivatives.

(**) Grout Joint Recommendations. Per TCNA Handbook, the minimum required joint width for ceramic tile and natural stone is 1/16". Setting ceramic or stone without a grout joint of a least 1/16", often referred to as a butt joint, does not provide sufficient accommodation for dynamic building movement, differential thermal expansion, or allowable variation in fabrication or manufacturing.

(***) With the exception of areas characterized by a higher risk of slipping (such as public showers, indoor swimming pools, locker rooms and steam rooms) for which an Anti-Slip surface is recommended.

(****) Anti-Slip surface special order only.

PACKINGS AND WEIGHTS

SIZES	SF / CTN	LINEAR FT / CTN	PIECES / CTN	CTN / PALLET	SF / PALLET	LBS / CTN	LBS / PALLET
12"x24" Natural / Anti-Slip	15.82	-	8	32	506.24	66.58	2,130.56
MOSAIC 25 pcs 12"x12" Natural	3.87	-	4	90	348.3	16.53	1,487.7
BULLNOSE 31/8"x12" Natural	5.17	19.68	20	112	579.04	22.05	2,469.6
COVE BASE 6"x12" Natural	3.87	-	8	108	417.96	16.53	1,785.24
24"x24" 20 mm Structured Anti-Slip	8.03	-	2	32	256.96	73.85	2,363.2
POOL COPING 12"x24" Rect 20 mm Structured Anti-Slip	1.94	-	1	100	194	17.91	1,791
POOL COPING 45 ANGLE L / R 12"x24" Rect 20 mm Structured Anti-Slip	1.45	-	1	100	145	13.45	1,345

Series: True Porcelain Tile

Specifications

Technical features

Product type: Porcelain stoneware – Class P1 (GL)
According to: ANSI A137.1



Technical characteristics	Test method	Value required for Porcelain Tile ANSI A137.1: Table 10	Average Values TRUE
Water absorption	ASTM C373	≤ 0.5 %	Conforms
Breaking strength	ASTM C648	≥ 250 lbf	Thickness 9 mm: 350 lbf Thickness 10 mm: 425 lbf
Surface abrasion resistance	ASTM C1027 As indicated by manufacturer		PEI 5 (Warm White, Light Beige, Mild Grey)
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	Conforms
Stain resistance	ASTM C1378 As indicated by manufacturer		Conforms
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 Porcelain	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 Porcelain	Rectified: max ±0.40% or max ±0.07" Calibrated: max ±0.50% or max ±0.07"	Conforms
Nominal dimensions	ASTM C499 Porcelain	Rectified: -3.0%/+2.0% of nominal dimensions Calibrated: max ±3.0% of nominal dimensions	Conforms
Caliber range	ASTM C499 Porcelain	Rectified: max ±0.25% or max ±0.03" Calibrated: max ±0.50% or max ±0.08"	Conforms
Wedging	ASTM C502 Porcelain	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	Mohs 7
Dynamic Coefficient of Friction (DCOF)	ANSI A326.3	≥ 0.42 (internal wet environments)	≥ 0.42
Slip resistance	DIN 51130	-	R11 (Anti-Slip 20 mm)
Slip resistance	DIN 51097	-	A+B+C (Anti-Slip 20 mm)
Shade variation	ANSI A137.1	As indicated by manufacturer	V2
Flame spread	ASTM E84	-	Class A

(*) Excluding hydrofluoric acid and its derivatives

Series: True Porcelain Tile

Dimensional Specifications

18"x36" Natural Linear Size (mm)	
Caliber	Avg. Size
H	447.6 x 892.2
I	448.5 x 894.0
Q	449.4 x 895.8
M	450.3 x 897.6
T	451.2 x 899.4
S	452.1 x 901.2
U	453.0 x 903.0
X	453.9 x 904.8
V	454.8 x 906.6
Z	455.7 x 908.4

18"x18" Natural Linear Size (mm)	
Caliber	Avg. Size
F	441.2
G	443.0
H	444.8
I	446.6
Q	448.4
T	450.2
U	452.0
V	453.8
W	455.6
Y	457.4

12"x24" Natural Linear Size (mm)	
Caliber	Avg. Size
H	294.0 x 592.0
I	295.2 x 594.4
Q	296.4 x 596.8
T	297.6 x 599.2
U	298.8 x 601.6
V	300.0 x 604.0
W	301.2 x 606.4
Y	302.4 x 608.8
G	303.6 x 611.2

12"x12" Natural Linear Size (mm)	
Caliber	Avg. Size
G	294.0
H	295.2
I	296.4
Q	297.6
T	298.8
U	300.0
V	301.2
W	302.4
Y	303.6

18"x36" Rectified Linear Size (mm)		
Caliber	Avg. Size	
X	447	895
Y	442	890

Thicker 20 mm 24"x24" Natural Linear Size (mm)	
Caliber	Avg. Size
Q	597.0
M	599.0
T	601.0
S	603.0
U	605.0
X	607.0
V	609.0
Z	611.0
W	613.0



Recommendations

Grout Joint Recommendations

Per TCNA Handbook, the minimum required joint width for ceramic tile and natural stone is 1/16th". Setting ceramic or stone without a grout joint of a least 1/16th", often referred to as a butt joint, does not provide sufficient accommodation for dynamic building movement, differential thermal expansion, or allowable variation in fabrication or manufacturing. Florida Tile recommends a minimum 3/16th grout joint for all ceramic tile and natural stone installations and 1/8th grout joint for rectified tiles.

Offset Installations (Brick Patterns)

The TCNA Handbook recommends no more than a 33% offset and a wider grout joint for offset installations of tile larger than 15" on the longest side. This is because all tiles are higher in the middle than at the edges. When the highest point (middle) of one tile is next to the lowest point (edge) of the tile next to it, unacceptable lippage can result. We are aware that many installers wish to use tiles (especially 12"x24" tiles) in brick patterns with a 50% offset. Typically, our tiles are flatter than those of our competitors and better suited for this type of application. We encourages installers to follow the TCNA Handbook recommendations. If an offset greater than 33% is specified, specifier and owner must approve mockup and lippage. TCNA handbook recommends a minimum 1/8th grout joint for rectified tiles and a minimum 3/16th grout joint for calibrated tiles. We recommend a wider (3/16" minimum) grout joint for this type of installation and it is important to avoid 'wash' lighting that is set close to the tiled surface which can aggravate the appearance of lippage due to shadows. Care must be taken to follow the subfloor flatness and installation guidelines in the TCNA Handbook for a successful installation.

Series: True Porcelain Tile

Tender specifications

USA porcelain stoneware tiles for walls and floors.



Product characteristics

USA full body porcelain stoneware tiles, glazed, 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 True 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 collection helps to meet the criteria for obtaining LEED credits. The content of "pre-consumer" recycled material is 40%, as certified by a qualified external body (LEED V4 Regulations - MR Credit). The product contains no VOC (volatile organic compounds) and has obtained the GREENGUARD GOLD certification. The Environmental Product Declaration (EPD) is available, this tool communicates clearly the environmental performances of the True collection based on its Cycle Assessment (LCA).

The collection is certified by Green Squared, a TCNA initiative aimed to recognize and certify sustainable products according to the ANSI 138.1 law.

Commercial description of the product				
Company	Legacy Tile - Distributor			
Country of origin	USA			
Collection	TRUE			
Colours	Warm White, Light Beige, Mild Gery, Soft Black			
Nominal Sizes	18"x36" NAT	18"x18" NAT	12"x24" NAT	12"x12" NAT
	18"x36" NAT RECT	24"x24" ANTI-SLIP 20mm		
Surface Finish	GLAZED			
Surfaces Processing	NATURAL (NAT) ANTI-SLIP			
Edges	RECTIFIED (RECT), NOT RECTIFIED			
Thickness	9 mm 10 mm 20 mm			

Series: True Porcelain Tile

COLOURED-BODY GLAZED STONEWARE

INTENDED USE

KEY



RESIDENTIAL

Kitchens, bathrooms, living rooms and other residential environments.



LIGHT COMMERCIAL

Offices, offices open to the general public, waiting rooms, shops, public bathrooms, common apartment block areas, restaurant dining rooms, car showrooms, bars, cinemas, surgeries/clinics, hotel rooms and bathrooms.



INTENSIVE COMMERCIAL

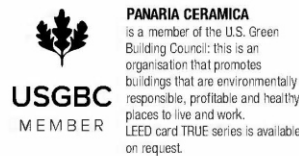
Common areas of shopping centres, hotel foyers, canteens, fast food restaurants, dance clubs, hospitals, schools, museums, places of worship, airports, stations.



OUTDOOR

Mainly for external areas that require flooring with anti-slip characteristics.

CERTIFICATIONS



Product designed in Italy

PANARIA AND THE ENVIRONMENT



100% REUSE OF UNFIRED TILES

Crude waste generated by the process is reintegrated in the production cycle with no costs for the environment. This contributes to the safeguard of natural resources.



100% REUSE/RECYCLING OF THE INDUSTRIAL WASTE - FIRED TILES

The waste-fired tiles are fully reused in the production cycle. In addition, at the end of life, the tiles Panaria can be recycled as materials for substrates for roads and buildings, thus reducing the use of gravel and natural aggregates commonly used in building.



100% WATER RECYCLING

The water used in the production process is recycled. The water demand is strongly reduced by this mean.



100% OF NON CERAMIC WASTE

Is differentiated and recycled in other production cycles.



LOW EMISSIONS IN THE ATMOSPHERE

Panaria production plant strictly complies to US Standards with a very small amount of gas emissions in the atmosphere.



SAFETY REQUIREMENTS: NO FIRE REACTION

All of our ceramic tile products are Class A building materials as described in ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials. This is due to the flame spread rating of (0) and smoke developed rating of (0) falling within the ranges of a Class A material. Other building codes refer to this as a Type I material in accordance with NFPA 255.



PACKING MATERIAL IS 100% RECYCLABLE

Carton boxes, plastic packaging materials, wooden pallets, straps, etc.



METHANE CONSUMPTION IS HIGHLY REDUCED

By the use of up to date technologies and customized installations.



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