

Suggested Applications

floor wall residential light commercial heavy commercial exterior pools

Installation Suggestions

joint size: 2mm modular setting plank installation
 edge: straight rustic rectified
 finish: matte polished structured
 honed semi-polished other

Porcelain Type

through-body color-bodied glazed unglazed double-loaded other

Shade Variation

V1 Uniform Appearance V2 Slight Variation V3 Moderate Variation V4 Substantial Variation
 thickness: **10mm** # of faces:

Slip Resistance



COF	WET	DRY	DCOF	DIN 51130	DIN 51097 Class	Typical Applications	Critical Angle
accessible routes	standard* .6	result	standard* .6	<input checked="" type="checkbox"/> R9* 3-10°	<input checked="" type="checkbox"/> A	Barefoot, but mainly dry aisles and walkways, dry changing areas	≥12°
ramps	.8		.8	<input type="checkbox"/> R10 10-19°	<input type="checkbox"/> B	Shower rooms, pool surrounds, wet changing areas, disinfectant spray areas (plus all Class A areas)	≥18°
				<input type="checkbox"/> R11 19-27°	<input type="checkbox"/> C	Areas constantly under water, e.g. steps into pools, foot baths, included pool surrounds, jacuzzis (plus all Class A&B areas)	≥24°
				<input type="checkbox"/> R12 27-35°			
				<input type="checkbox"/> R13 >35°			

*Industry Standard/ADA Requirements

Values: 0-0.50 Questionable, 0.50-0.60 Conditionally Slip Resistant, >0.60 Slip Resistant

*rating not available in polished finish

ASTM C-1028
DIN 51097/51130

Scratch Resistance



Mineral

1. Talc (Talc)	6. Microline (Glass, Glazed Tile)
2. Gypsum (Fingernail)	7. Quartz (Unglazed Porcelain)
3. Calcite (Penny)	8. Topaz (Granite)
4. Flourite (Some Marbles)	9. Corundum (Ruby)
5. Apatite (Knife Blade)	10. Diamond (Diamond)

Industry standard ≤175mm²

MOH'S SCALE **6**
UNI EN ISO 10545.6 **123**

Wear Resistance

PEI RATING
UNI EN ISO
10545.7

- Class 1: Walls only
- Class 2: Resid. floors w/minimal abrasive traffic.
- Class 3: Resid. interiors normal use and foot traffic.
- Class 4: Light-medium commercial applications.
- Class 5: Commercial applications.

Stain Resistance

ASTM C1378-04
UNI EN ISO 10545.14 **5**

- 5: Removed after 5 minutes (hot water running)
- 4: Removed by manual cleaning (weak detergent)
- 3: Removed by mechanical cleaning (strong detergent)
- 2: Removed by immersion (24 hrs in suitable solvent)
- 1: Stain not removed

Water Absorption

ASTM C-373
UNI EN ISO 10545.3

<input checked="" type="checkbox"/> Absorbs 0-.5%	<input type="checkbox"/> Absorbs .5-3%	<input type="checkbox"/> Absorbs 3-7%	<input type="checkbox"/> Absorbs 7% +
Impervious Interior/exterior Frost Resistant	Vitreous Interior/exterior Frost Resistant	Semi-Vitreous Indoor use only	Non-Vitreous Indoor use only

Breaking Strength

ASTM C648
UNI EN ISO 10545.4



Industry standard should be greater than 250 lbs or 50 N/MM²

Facial Dimension

ASTM c499-09
UNI EN ISO 10545.02

	Standard	Tolerance	Result
flatness	±5mm	±.5%	
thickness	±6mm	±.5%	
straightness	±4.5mm	±.5%	
squareness	±5.4mm	±.6%	
sides L/W	±1.1mm ±4.5mm	±.5%	

Chemical Resistance

ASTM C650
UNI EN ISO 10545.13

Allowances for:

	result
acid	<input type="checkbox"/> ULA
bases	<input type="checkbox"/> UA
chemicals	<input type="checkbox"/> UHA

Leed Information



REQUIREMENTS FOR COMMERCIAL INTERIORS/NEW CONSTRUCTION

Sustainable Sites	1 Point
Site selection	
SS CREDIT 1 Heat Island Effect-non roof Material with a solar reflectant index of at least 29.	<input type="checkbox"/>
Energy & Atmosphere	1 Point
EA CREDIT 4 Green Power: Products that optimize energy performance for floors and walls using thermal conductivity. BTU-FT	<input type="checkbox"/>
Indoor Environmental Quality	1 Point
Low-Emitting Materials-Flooring Systems	
IEQ CREDIT 3.1-7 Green Cleaning: Reducing occupants exposure to hazardous cleaning chemicals.	<input type="checkbox"/>
IEQ CREDIT 4.1 Low Emitting Adhesives: Products less than 65 G/L VOC	<input type="checkbox"/>
IEQ CREDIT 4.3 Low Emitting Materials: Flooring systems.	<input type="checkbox"/>

Materials & Resources	1 Point	2 Points
M&R CREDIT 2 Construction Waste Management: Recycling salvaged construction waste in to new reusable materials.	50% <input type="checkbox"/>	70% <input type="checkbox"/>
M&R CREDIT 4.1-4.2 Recycled Content: The sum of post consumer plus 1/2 of the pre consumer reps at least 10-20% of total value of materials.	10% <input type="checkbox"/>	20% <input type="checkbox"/>
M&R CREDIT 5 Regional Materials: Materials manufactured within 500 miles of the project site.	10% <input type="checkbox"/>	20% <input type="checkbox"/>
Innovation in Design		1-5 Points
ID CREDIT 1 Innovation in Design Measurable exemplary environmental performance.		<input type="checkbox"/>

Type: 24x48, 24x24
Porcelain Polished Finish

Product Line: RENAISSANCE
Wall & Floor Tile