

Suggested Applications

Floor ☒

Wall ☒

Residential ☒

Light Commercial ☒

Heavy Commercial ☐
*Wear can vary greatly. please consult with a professional.

Exterior ☐

Pools ☐

Installation Suggestions

Plank Installation* ☐
*Install the offset the width of the plank. For professional installation, the use of leveling spacers for all plank and rectangular (ie. 12x24) format tiles is recommended.

Modular Setting ☒

Joint Size ☐
MIN. 1/4"

EDGE:

Straight/Pressed ☐

Rustic ☒

Rectified ☐

FINISH:

☒ Matte ☐ Polished ☐ Structured

☐ Honed ☐ Semi-Polished ☐

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:

9mm

OF FACES:

24 = 16x24
48 = 16x16
70 = 8x16
100 = 8x8

Slip Resistance

DCOF

>0.43

Values	Applications
0.42	Recommended Standard DCOF value for wet/dry commercial flooring
0.65	Recommended Standard DCOF value for ADA ramps

ASTM C-1028
ANSI A137.1
DIN 51097/51130

DIN 51130

*R9: Industry Standard/ADA Requirements **R11: Recommended For Exteriors

☐ R9* (3-10°) ☒ R10 (10-19°) ☐ R11** (19-27°)

☐ R12 (27-35°) ☐ R13 (>35°)

DIN 51097

Class	Typical Applications	Critical Angle
<input checked="" type="checkbox"/> A	Barefoot, but mainly dry aisles and walkways, dry changing areas	≥12°
<input type="checkbox"/> B	Shower rooms, pool surrounds, wet changing areas, disinfectant spray areas (plus all Class A areas)	≥18°
<input type="checkbox"/> C	Areas constantly under water, e.g. steps into pools, foot baths, inclined pool surrounds, jacuzzis (plus all Class A&B areas)	≥24°

Scratch Resistance

MOH'S SCALE
UNI EN ISO 10545.6

≤175

MINERAL

1. Talc (Talc)

2. Gypsum (Fingernail)

3. Calcite (Penny)

4. Flourite (Some Marbles)

5. Apatite (Knife Blade)

6. Microline (Glass, Glazed Tile)

7. Quartz (Unglazed Porcelain)

8. Topaz (Granite)

9. Corundum (Ruby)

10. Diamond (Diamond)

Industry standard ≤175mm²

Wear Resistance

PEI RATING
UNI EN ISO 10545.7

☐ Class 1: Walls only

☐ Class 2: Residential floors w/minimal abrasive traffic

☐ Class 3: Residential interiors/light commercial traffic

☒ Class 4: Medium commercial applications

☐ Class 5: All commercial applications/heavy traffic

*Wear can vary greatly. please consult with a professional.

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

☒ Absorbs 0-.5% ☐ Absorbs .5-3% ☐ Absorbs 3-7% ☐ 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

PASS

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

Facial Dimension

ASTM c499-09
UNI EN ISO 10545.02

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

Chemical Resistance

ASTM C650
UNI EN ISO 10545.13

Allowances for:
result
Acid PASS
Bases PASS
Chemicals PASS

Leed Information

REQUIREMENTS FOR COMMERCIAL INTERIORS/NEW CONSTRUCTION

Sustainable Sites	1 Point
Site selection	
SS CREDIT 1 Heat Island Effect-non roof	<input type="checkbox"/>
Material with a solar reflectant index of at least 29.	
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 Low-Emitting Materials-Flooring Systems	1 Point
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.

☐

Type: Porcelain Stoneware

Product Line: TIVOLI

*The marketing name for this product is property of ColsaA-USA. This same product may be marketed under different names. *