

Suggested Applications

Floor Wall Residential Light Commercial Heavy Commercial Exterior Pools

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

Installation Suggestions

Plank Installation* **Joint Size** 1/16" = rectified edge 1/8" = pressed edge
*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.

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: 12x24 = 8mm, 24x48 = 9mm
OF FACES: 12x24=24, 24x48=12

Slip Resistance

DCOF	Values	Applications
0.48	0.42	Recommended Standard DCOF value for wet/dry commercial flooring
	0.65	Recommended Standard DCOF value for ADA ramps

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°

ASTM C-1028
 ANSI A137.1
 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

Wear Resistance

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

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Stain Resistance

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

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%	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	A
Bases	A
Chemicals	A

Leed Information

Sustainable Sites Site selection	1 Point
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 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.	<input type="checkbox"/>	

Type: **Porcelain Stoneware**
 Product Line: **NAPLES**

REQUIREMENTS
 FOR COMMERCIAL
 INTERIORS/NEW
 CONSTRUCTION

The marketing name for this product is property of CTS Pro. This same product may be marketed under different names.