

# Suggested Applications

Floor  Wall  Residential  Light Commercial  Heavy Commercial  Exterior  Pools

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

# Installation Suggestions

Plank Installation\*  Modular Setting  Joint Size  2mm

\*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=9.5mm 24x48=10.5mm # OF FACES: 12x24=64 24x24=32 24x48=17

# Slip Resistance

DCOF	Values	Applications
<input checked="" type="checkbox"/> 0.42	0.42	Recommended Standard DCOF value for wet/dry commercial flooring
<input type="checkbox"/> 0.65	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. Fluorite (Some Marbles)	9. Corundum (Ruby)
5. Apatite (Knife Blade)	10. Diamond (Diamond)

Industry standard ≤175mm<sup>2</sup>

MOH'S SCALE  
 UNI EN ISO  
 10545.6

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# 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

- 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

ASTM C1378-04  
 UNI EN ISO  
 10545.14

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# 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% +
<input checked="" type="checkbox"/> Impervious Interior/Exterior Frost Resistant	<input type="checkbox"/> Vitreous Interior/Exterior Frost Resistant	<input type="checkbox"/> Semi-Vitreous Indoor Use Only	<input type="checkbox"/> Non-Vitreous Indoor Use Only

# Breaking Strength

  
 Industry standard should be greater than  
 250 lbs  
 or  
 50 N/MM<sup>2</sup>

ASTM C648  
 UNI EN ISO  
 10545.4

>50N

# 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	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 Material with a solar reflectant index of at least 29.	<input checked="" 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 checked="" 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 checked="" type="checkbox"/>
IEQ CREDIT 4.1 Low Emitting Adhesives: Products less than 65 G/L VOC	<input checked="" type="checkbox"/>
IEQ CREDIT 4.3 Low Emitting Materials: Flooring systems.	<input checked="" 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 checked="" 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 checked="" type="checkbox"/>
M&R CREDIT 5 Regional Materials: Materials manufactured within 500 miles of the project site.	10% <input type="checkbox"/>	20% <input checked="" type="checkbox"/>
Innovation in Design	1-5 Points	
ID CREDIT 1 Innovation in Design Measurable exemplary environmental performance.	<input checked="" type="checkbox"/>	

Type: **Porcelain (matte)**

Product Line: **Royal**

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