

**ROYAL**  
porcelain stoneware



**COBSA USA**  
NEW YORK | NEW JERSEY | MIAMI

# CALACATTA GOLD

Royal



M ELEROCG2448  
P ELEROCG2448L



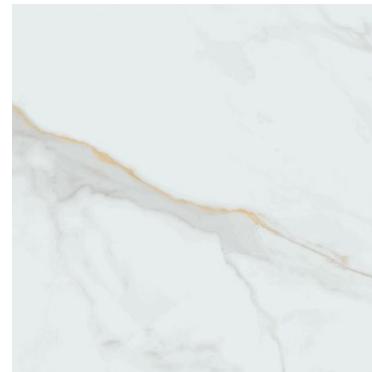
- 24x48 -

M ELEROCG1224  
P ELEROCG1224L



- 12x24 -

M ELEROCC24



- 24x24 -

M ELEROGMOS22



- 2x2 mosaic -



- hex mosaic -



- herringbone -

M ELEROCCWEAVE



- basketweave -

M ELEROGBN224  
P ELEROGBN224L



- 2x24 bullnose -

M = MATTE FINISH  
P = POLISHED FINISH

Royal

# DOLOMITE



M ELERODO2448  
P ELERODO2448L



- 24x48 -

M ELERODO1224  
P ELERODO1224L



- 12x24 -

M ELERODO24



- 24x24 -

M ELERODOMOS22



- 2x2 mosaic -

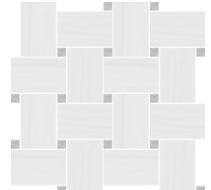


- hex mosaic -



- herringbone -

M ELERODOWEAVE



- basketweave -

M ELERODOBN224  
P ELERODOBN224L



- 2x24 bullnose -

M = MATTE FINISH

P = POLISHED FINISH

# STATUARIO

*Royal*



M ELEROST2448  
P ELEROST2448L



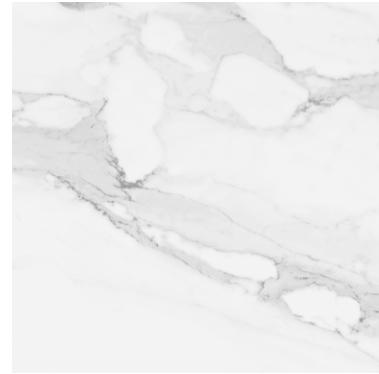
- 24x48 -

M ELEROST1224  
P ELEROST1224L



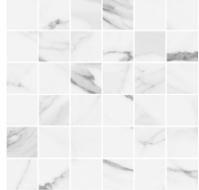
- 12x24 -

M ELEROST24



- 24x24 -

M ELEROSTMOS22



M ELEROSTHEX



M ELEROSTHER



- 2x2 mosaic -

- hex mosaic -

- herringbone -

M ELEROSTWEAVE



- basketweave -

M ELEROSTBN224  
P ELEROSTBN224L



- 2x24 bullnose -

*M = MATTE FINISH  
P = POLISHED FINISH*



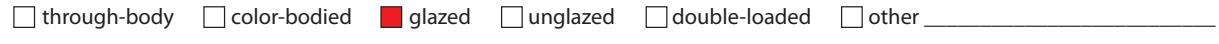
## Suggested Applications



## Installation Suggestions



## Porcelain Type



## Shade Variation



## Slip Resistance

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

DCOF	Values	Applications
<b>0.42</b>	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		Critical Angle
<b>Class A</b>	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

**6**

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>

## 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

<b>Absorbs 0-5%</b>	<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

>50N



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

## Facial Dimension

ASTM c499-09  
UNI EN ISO  
10545.02

flatness	Standard	Tolerance	Result
	±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	<b>PASS</b>
Bases	<b>PASS</b>
Chemicals	<b>PASS</b>

## Leed Information



REQUIREMENTS  
FOR COMMERCIAL  
INTERIORS/NEW  
CONSTRUCTION

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

Materials & Resources	1 Point	2 Points
<b>M&amp;R CREDIT 2</b> Construction Waste Management: Recycling salvaged construction waste in to new reusable materials.	50% <input type="checkbox"/>	70% <input checked="" type="checkbox"/>

<b>M&amp;R CREDIT 4.1-4.2</b> 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"/>
------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------	-----------------------------------------

<b>M&amp;R CREDIT 5</b> Regional Materials: Materials manufactured within 500 miles of the project site.	10% <input type="checkbox"/>	20% <input checked="" type="checkbox"/>
-------------------------------------------------------------------------------------------------------------	------------------------------	-----------------------------------------

<b>Innovation in Design</b>	1-5 Points
<b>ID CREDIT 1</b> Innovation in Design	<input checked="" type="checkbox"/>

Type:  
**Porcelain (matte)**

Product Line:  
**Royal**

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

## Suggested Applications



## Installation Suggestions



\*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:



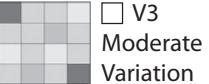
FINISH:



## Porcelain Type

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

## Shade Variation



THICKNESS:  
12x24=9.5mm  
24x48=10.5mm

# OF FACES:  
12x24=64  
24x48=17

## Slip Resistance

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

DCOF



Values

0.42  
0.65

Applications

Recommended Standard DCOF value for wet/dry commercial flooring  
Recommended Standard DCOF value for ADA ramps

DIN 51097

Class

Typical Applications

Critical Angle

A

Barefoot, but mainly dry aisles and walkways, dry changing areas

≥12°

B

Shower rooms, pool surrounds, wet changing areas, disinfectant spray areas (plus all Class A areas)

≥18°

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

6

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  $\leq 175\text{mm}^2$

## 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%  
Impervious  
Interior/Exterior  
Frost Resistant



Absorbs .5-3%  
Vitreous  
Interior/Exterior  
Frost Resistant



Absorbs 3-7%  
Semi-Vitreous  
Indoor Use Only



Absorbs 7% +  
Non-Vitreous  
Indoor Use Only

## Breaking Strength

ASTM C648  
UNI EN ISO  
10545.4

>50



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

## Facial Dimension

ASTM c499-09  
UNI EN ISO  
10545.02

Standard

Tolerance

Result

flatness

$\pm 5\text{mm}$

$\pm .5\%$

PASS

thickness

$\pm 6\text{mm}$

$\pm .5\%$

PASS

straightness

$\pm 4.5\text{mm}$

$\pm .5\%$

PASS

squareness

$\pm 5.4\text{mm}$

$\pm .6\%$

PASS

sides L/W

$\pm 1.1\text{mm}$

$\pm 4.5\text{mm}$

$\pm .5\%$

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

#### Site selection

1 Point

#### SS CREDIT 1

Heat Island Effect-non roof



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



### Indoor Environmental Quality

#### Low-Emitting Materials-Flooring Systems

1 Point

#### IEQ CREDIT 3.1-7

Green Cleaning: Reducing occupants exposure to hazardous cleaning chemicals.



#### IEQ CREDIT 4.1

Low Emitting Adhesives: Products less than 65 G/L VOC



#### IEQ CREDIT 4.3

Low Emitting Materials: Flooring systems.



### Materials & Resources

#### M&R CREDIT 2

Construction Waste Management: Recycling salvaged construction waste to new reusable materials.

1 Point

2 Points

50%

70%

#### 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%

20%

#### M&R CREDIT 5

Regional Materials: Materials manufactured within 500 miles of the project site.

10%

20%

### Innovation in Design

1-5 Points

#### ID CREDIT 1

Innovation in Design

Measurable exemplary environmental performance.



Type:  
Porcelain (polished)

Product Line:  
Royal

\*The marketing name for this product is property of Cobs4-USA.  
This same product may be marketed under different names.\*

**COBSA USA**

NEW YORK | NEW JERSEY | MIAMI