

ROYAL

porcelain collection



CANCOS
TILE & STONE

CALACATTA GOLD

Royal



M ELEROCG2448
P ELEROCG2448L



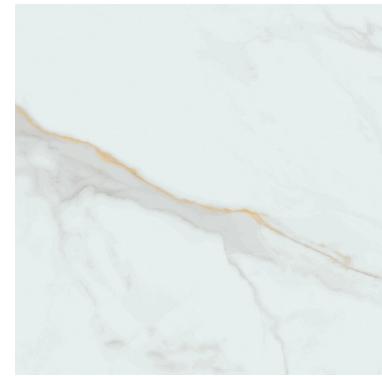
- 24x48 -

M ELEROCG1224
P ELEROCG1224L



- 12x24 -

M ELEROCG24



- 24x24 -

M ELEROGMOS22



- 2x2 mosaic -



- hex mosaic -



- herringbone -

M ELEROCCWEAVE



- basketweave -

M ELEROGBN224



- 2x24 bullnose -

M = MATTE FINISH
P = POLISHED FINISH

Royal

DOLOMITE



M ELERODO2448
P ELERODO2448L



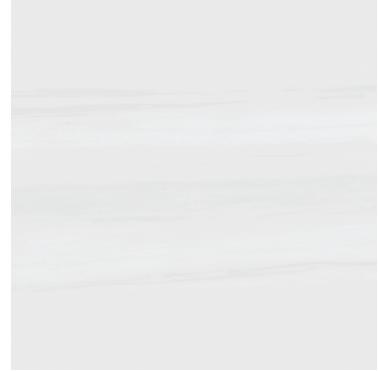
- 24x48 -

M ELERODO1224
P ELERODO1224L



- 12x24 -

M ELERODO24



- 24x24 -

M ELERODOMOS22



- 2x2 mosaic -



- hex mosaic -

M ELERODOHER



- herringbone -

M ELERODOWEAVE



- basketweave -

M ELERODOBN224
P ELERODOBN224L



- 2x24 bullnose -

M = MATTE FINISH
P = POLISHED FINISH

STATUARIO

Royal



M ELEROST2448
P ELEROST2448L



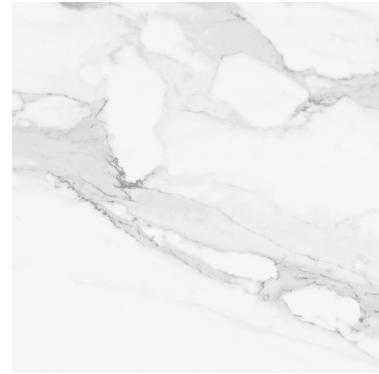
- 24x48 -

M ELEROST1224
P ELEROST1224L



- 12x24 -

M ELEROST24



- 24x24 -

M ELEROSTMOS22



- 2x2 mosaic -

M ELEROSTHEX



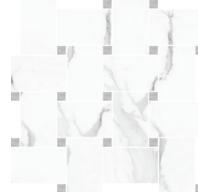
- hex mosaic -

M ELEROSTHER



- herringbone -

M ELEROSTWEAVE



- basketweave -

M ELEROSTBN224
P ELEROSTBN224L



- 2x24 bullnose -

M = MATTE FINISH
P = POLISHED FINISH



Royal



calacatta gold



Royal



dolomite



Royal



statuario

Suggested Applications



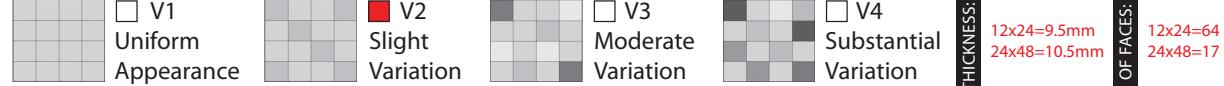
Installation Suggestions



Porcelain Type

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

Shade Variation



Slip Resistance

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

DCOF	Values	Applications
0.42	0.42	Recommended Standard DCOF value for wet/dry commercial flooring
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		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)	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

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

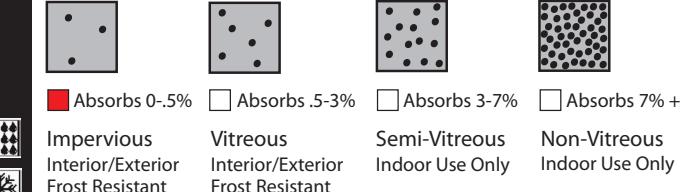
ASTM C1378-04
UNI EN ISO
10545.14

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



Breaking Strength

ASTM C648
UNI EN ISO
10545.4

>50N



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

Facial Dimension

ASTM c499-09
UNI EN ISO
10545.02

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

Chemical Resistance

ASTM C650
UNI EN ISO
10545.13

Allowances for:	result
Acid	
Bases	
Chemicals	

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	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%

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%
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M&R CREDIT 5 Regional Materials: Materials manufactured within 500 miles of the project site.	10% <input type="checkbox"/>	20%
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Innovation in Design	1-5 Points
ID CREDIT 1 Innovation in Design Measurable exemplary environmental performance.	

Type:
Porcelain (matte)

Product Line:
Royal

*The marketing name for this product is property of Cacoas Tile & Stone.
This same product may be marketed under different names.*

Suggested Applications



Installation Suggestions

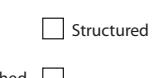


*Install the offset the width of the plank. For professional installation, the use of leveling spacers for all plank and rectangular (i.e. 12x24) format tiles is recommended.

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 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

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10545.6

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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

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10545.14

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Water Absorption

ASTM C-373
UNI EN ISO
10545.3



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/MM²

Facial Dimension

ASTM c499-09
UNI EN ISO
10545.02

	Standard	Tolerance	Result
flatness	$\pm 5\text{mm}$	$\pm .5\%$	FAIL FAIL
thickness	$\pm 6\text{mm}$	$\pm .5\%$	FAIL FAIL
straightness	$\pm 4.5\text{mm}$	$\pm .5\%$	FAIL FAIL
squareness	$\pm 5.4\text{mm}$	$\pm .6\%$	FAIL FAIL
sides L/W	$\pm 1.1\text{mm}$ $\pm 4.5\text{mm}$	$\pm .5\%$	FAIL FAIL

Chemical Resistance

ASTM C650
UNI EN ISO
10545.13

Allowances for:	result
Acid	FAIL FAIL
Bases	FAIL FAIL
Chemicals	FAIL FAIL

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

FAIL FAIL

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%

FAIL FAIL

M&R CREDIT 5

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

10%

FAIL FAIL

Innovation in Design

1-5 Points

ID CREDIT 1

Innovation in Design

Measurable exemplary environmental performance.

Type:
Porcelain (polished)

Product Line:
Royal

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TILE & STONE