UNITED STATES CERAMIC TILE

11190 NW 25th Street, Suite 100
MIAMI, FL 33172
www.rocatileusa.com

Model/ Series:		CC Mosaics Plus+ Herringbone
Size:		All Sizes Available
Colors:		All Colors Available
Type:		GLAZED PORCELAIN
Application		INDOOR/ OUTDOOR
Thickness:		6 mm
Recycled Content:	-	Pre-Consumer

Technical Data

	ASTM Test	ISO Test	Value Required ANSI	Declared ASTM
Water Absorption	C373	*ISO-10545/3*	<=0.5%	<=0.5%
Break Strength	C648	*ISO-10545/4*	>= 250	Min. 250
Scratch Hardness	MOH's Scale	*EN-101*	-	3
Chemical Resistance	C650	*ISO-10545/13*	Unaffected	Unaffected
Frost Resistance	C1026	*ISO-10545/12*	Resistant	Resistant
Group	SEE FAQS	*SEE FAQS*	-	3
Deep Abrasion - Unglazed Tiles	C1243	*ISO-10545/6*	<175 mm3	-
PEI - Glazed Tiles***	C1027	*ISO-10545/7*	-	3
Minimum Bond Strength (PSI)	C482		>=50 psi	165
Dynamic Coefficient of Friction (DCOF)	A137.1	-	>=0.42	<=0.22
Shade and Texture Rating	CTDA "V"	-	-	V1
Facial Dimensions	C499	*ISO-10545/2*	1.5% Max	Pass
Range of Thickness	C499	*ISO-10545/2*	0.040 Max	Pass
Warpage	C485	*ISO-10545/2*	0.75%	Pass
Wedging	C502	*ISO-10545/2*	1.0% Max	Pass

-

Signature:
Quality Management Manager

ROCA SANITARIO, S.A.
N.I.F. A-08037392
Av. Diagonal 513
08029 BARCELONA

Release Date 11/16/2020

Technical Specifications FAQ's

What is DCOF?

According to the ANSI A137.1-2012 standard, ceramic tiles selected for level interior spaces expected to be walked upon when wet must have a minimum wet DCOF AcuTest value of 0.42. Tiles with a lower value are not necessarily restricted to dry areas only, but rather are restricted to applications where they are kept dry when walked upon. In the case of residential bathrooms, the common use of bathmats can accomplish this. Similarly, in entranceways, the use of entrance mats can accomplish the same.

Not all products with a DCOF AcuTest value over 0.42 are suitable for all applications. Type of use, traffic, contaminants, maintenance, expected wear, and manufacturer's guidelines and recommendations are important and must also be considered by the specifier.

Section 6.2.2.1.10 of ANSI A137.1-2012 explains this in greater detail and should be reviewed carefully by anyone involved in the specification process before picking the right tile for their next project.

Source: TCNA Technical Bulletin 2013

What are Roca Use Groups?

Before selecting the product for an installation, it is recommended always to check the group to which it belongs with regard to its intended application.

To facilitate this task, Roca has drawn up a list of use groups, which is a general classification to be used as a guideline and is based on the Surface Abrasion standard (ISO 10545-7), the Mohs scale (EN-101), Stain Resistance (ISO 10545-14), Chemical Resistance (ISO 10545-13), the Deep Abrasion standard (ISO 10545-6). In this way, Roca's products are classified for guidance. Depending on the conditions of use, the professional will decide on the most suitable product.

For zones with very little traffic.

For zones with moderate traffic.

For zones with intense traffic.

For zones with little traffic.

For zones with high traffic.

Polished porcelain tiles. For zones with high traffic.

The choice of non-slip products can be made in accordance with the 'DCOF' section found in the Product Technical Sheets.

Roca recommends the use of the Product Technical Specifications available through our commercial network or on our website (www.rocatileusa.com), in order to be more familiar with the product and make the most suitable choice.

Although the final responsibility of the choice of the Roca tile used lies with the user and the projects' management, Roca's commercial and technical staff will be pleased to advise you on the choice of the tile product.

What is Deep Abrasion & PEI Rating?

The PEI rating or abrasion resistance for glazed tiles is summarized in ANSI A137.1 with a table (shown in ANSI table 6.2.3.5 below) that rates the products from Class 0 'not recommended for floors' to Class V 'heavy commercial' based on a test that simulates foot traffic and determines if there were any scratches in the glaze.

On the other hand, ANSI does not rate unglazed products in the same way. Unglazed products are tested with a wheel that grinds the tile's surface and the test calculates the amount of material removed while exposed to this grinding wheel. The less material removed, the harder the tile. Please refer to table 6.2.3.4 from the ANSI below to determine recommendations for use for the product you have selected.

Deep Abrasion *This value applies only to unglazed tile. Requirements are presented in table.*

Class	Maximum Value (loss in mm^3)
P1, E1, 01	175
P2	225
E2, 02	275
P3	345
E3, 03	393
E4, 04	2365
P4	No requirement

Visible Abrasion Resistence *This value applies only to glazed floor, glazed quarry, glazed mosaic or glazed porcelain tiles. Classes are defined in table.*

Class	Maximum Recommended Use
0	Not recommended for floors
I	Light Residential
II	Residential
III	Heavy Residential or Light Commercial
IV	Commercial
V	Heavy Commercial

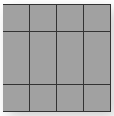
What is Water Absorption?

The ANSI has developed the table below to determine the amount of water absorption in tile. This is particularly useful when determining if the product selected is considered Porcelain.

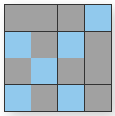
Forming Method	Impervious (Porcelain) $wa \leq 0.5\%$	Vitreous $0.5\% < wa \leq 3.0\%$	Semi-Vitreous $3.0\% < wa \leq 7.0\%$	Non-Vitreous $7.0\% < wa \leq 20.0\%$
Pressed	P1	P2	P3	P4
Extruded	E1	E2	E3	E4
Other	01	02	03	04

What is Shade Variation?

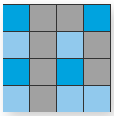
The Ceramic Tile Distributors Association (CTDA) developed a Color/Shade Variation Program to categorize tile based on the amount of color variation in a particular product.



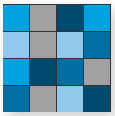
V1 UNIFORM APPEARANCE: Differences among pieces from the same production run are similar.



V2 SLIGHT VARIATION: Clearly distinguishable differences in texture and/or pattern with similar colors.



V3 MODERATE VARIATION: While the colors present on a single piece of tile will be indicative of the colors to be expected on the other tiles, the amount of color on each piece will vary significantly.



V4 SUBSTANTIAL VARIATION: Random color differences from tile to tile, so that one tile may have totally different colors from that on other tiles. Thus, the final installation will be unique.