



Certification of Physical Properties
Florida Tile Quality Assurance Department

Abrasion Resistance

Series: Cinema HDP	Glaze Finish: Glazed
Color - Sizes: All - Silver Screen, Ivory Lace, Burbank Beige	ANSI Tile Type: Porcelain Floor Tile
Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: ASTM C1027

Description: Tiles are placed on an ASTM compliant abrasion tester and abraded by the rotation of an abrasive media acting on the tiles.

Classification:

Revolutions to Visible Abrasion	Class	Classification
100	0	Not recommended for floors
150	1	Light Residential
600	2	Residential
750 or 1500	3	Heavy Residential/Lt Commercial
2100, 6000, or 12000	4	Commercial
12000+ and stain test	5	Heavy Commercial

Results:

Revolutions	Class	Classification
7500	5	Heavy Commercial

Dan Marvin
Director of Quality Assurance

** Tests were conducted by an independent third party laboratory using industry standard equipment and techniques. Values are offered in good faith as being accurate and typical of normal production. Due to natural variation of raw materials and manufacturing processes, the values of tile purchased for any particular installation may vary from these numbers. Buyer should evaluate suitability and safety of any product prior to installation. No warranty of any kind, expressed or implied, is made with respect to the information contained herein.



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Breaking Strength

Series: Cinema HDP	Glaze Finish: Glazed
Color - Sizes: All - Silver Screen, Ivory Lace, Burbank Beige	ANSI Tile Type: Porcelain Floor Tile
Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: ASTM C648

Description: Tiles are placed on a standard breaking strength machine and stressed until broken. The maximum force achieved before breaking is the strength of the sample. Reported value is the average of 10 pieces.

Requirement: ANSI standards require a minimum breaking strength for tile of this type to be equal or greater than 250 lbs

Results:

Average 12x12:	425 LBS	Pass
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Moh's Hardness

Series: Cinema HDP	Glaze Finish: Glazed
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Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: EN 101

Description: Tiles are tested by moving a mineral tipped stylus across the surface and looking for a scratch to be produced during 4 test cycles. The scale is calibrated using increasingly more dense minerals.

Classification:

Moh's Scale	Mineral
5	Apatite
5.5	Opal
6	Turquoise
6.5	Jade
7	Quartz
7.5	Emerald
8	Topaz
8.5	Alexandrite
9	Ruby
10	Diamond

Results:

Moh's Scale	Mineral
7	Quartz

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Water Absorption

Series: Cinema HDP	Glaze Finish: Glazed
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Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: ASTM C373

Description: Dried samples are boiled for 5 hours, then allowed to sit for 24 hours in distilled water. The percent water absorption is calculated by the difference in weight between the wet tile and the dry tile.

Classification:

Scale	Classification
≤0.5%	Porcelain
0.5% - 3.0%	Vitreous
3.0% - 7.0%	Semi-Vitreous
7.0% - 20.0%	Non-Vitreous

Results:

Result	Classification
≤0.5%	Porcelain

Third Party Certification: This product is Certified Porcelain by the Porcelain Tile Certification Agency



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Static and Dynamic Coefficient of Friction

Series: Cinema HDP	Glaze Finish: Glazed
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Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: ASTM C1028, A137.1

Description: SCOF Tiles are tested wet and dry. A neolite 'heel' is weighted with a 50 lb weight and force is applied until assembly begins to move. The peak force is recorded and the coefficient of friction is calculated versus a standard tile. Reported averages are from three separate test samples from the same lot
DCOF Samples are tested with the BOT 3000 device as per ANSI 137.1 - 2012

Results:

Wet SCOF	0.5
Dry SCOF	0.8
Wet DCOF	Does not pass

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Percentage of Recycled Content

Series: Cinema HDP	Glaze Finish: Glazed
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Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: Calculated per LEED for New Construction and Major Renovations Rating System, April 2009

Description: The amount of pre- and post-consumer waste is calculated based on a percentage of the body by weight

<u>Results:</u>	Pre-consumer RMC	40%
	Post-consumer RMC	0%

Recycled Content is certified by Bureau Veritas - certificate available upon request

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Bond Strength

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Reported by: Aaron Woodard	Report Date: March 8, 2013

Procedure: ASTM C482

Description: Tiles are bonded with a standard mortar to a standard cement block.
Force is applied to the tile until the bond fails. Results are average force required for failure for 5 pieces.

Requirement: ANSI standards require a minimum bond strength for tile of this type to be equal to or greater than 50 PSI

Results:

Average:	375 PSI	Pass
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