

PORCELAIN SLABS

INSTALLATION INSTRUCTIONS

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PRODUCT IDENTIFICATION

- Each full crate will include a product sticker with the product description, shade, size, and code, along with a packing slip for details of shipment and material.
- All smaller shipments will only include the packing slip. If a special shade is needed, please indicate it on the purchase order. When ordering the same material multiple times, the same (original) shade cannot be guaranteed.

FOR ALL PANELS FROM 120" X 60" & 60" X 60", VERTICAL TRANSPORTATION IS PREFERRED BY USING A-FRAME PACKAGING:

- A-frame packaging can hold up to 50 pieces of 5'x10' porcelain panels vertically.
- Full 20 ft. containers hold 150 pieces (3 total A-frames).



OTHER SIZE PACKAGING:

- 15"x30", 30"x30", and 30"x60" are regularly packaged in a box and shipped in wood crates. 60"x60" are shipped flat in reinforced crates, holding 24 pieces per crate, or on a vertical A-frame holding up to 48 pieces.

WHEN TAKING DELIVERY OF LARGE PORCELAIN PANELS 120" X 60" & 60" X 60" PLEASE NOTE THE FOLLOWING:

- It is important to examine any shipment to notate any damage on BOL or a claim may be refused.
- If you detect any defect after taking delivery of the panels, and prior to cutting, do not proceed with the processing. Call your customer service or sales representative immediately.

We do not recommend using the same A-frame to ship with as that received from the factory.

- When uncrating the panels, always apply clamps on an A-frame before strapping band is cut from the crate.



- Use a forklift boom & pitch clamp to carefully move the panels from the original slim factory A-frame, to an A-frame with a wider base and more obtuse angle. We recommend padding the A-frame prior to placing the panels on to each of its sides.



- Use 3 straps to tie the panels to the A-frame, and wrap plastic around the entire A-frame 3X to prepare the package for shipment.



Handling



- For the correct handling of the pallets, a fork lift truck must be used, at least 8 ft. long, with the forks positioned in the largest width position.
- Under normal conditions, the forks are positioned in the middle of the long side of the pallet, as they must grip the whole depth of the pallet.
- To allow the loading or extraction of the slabs easily and safely, it is recommended to position the pallets in a suitable area where the lift truck can be moved around all sides of the pallet.



- On all LTL shipments (12 panels or less), always strap A-frames securely inside of a cab. Never clamp them.



Handling

- Pump Activated Suction cup handles are recommended to move a panel a short distance. Panel weight is approx. 140 lbs. and no more than 2 experienced people are suggested to move.

- To safely transport up to 8 slabs of 6mm from warehouse to job site we strongly recommend the use of a transporter. The transporter is also designed to store slabs on the job site.

See page 13 for recommended tool providers



- Make sure to use proper base support when standing a panel. The use of two support pieces about 2" thick and 24" from each end of the panel, or a solid base with protective cushioning is recommended.

PLEASE USE PROPER HANDLING TOOLS WHEN MOVING THE PANELS OR CRATES

- Forklift Extension *See page 54*
 - Suction Cups *See page 55*
 - Large Porcelain Panel Tile Transporter *See page 55*
 - Forklift Boom & Pinch Clamp *See page 54*
- See page 13-15 for recommended tool providers*



OTHER HANDLING TOOLS NEEDED

- Rigid Working Table to Match the Dimension of the Panels 120" x 60" or larger *See photo above.*
- Scoring Tools *See page 7-9*
- Variable Speed Grinder With Electroplated Diamond Blades *See page 7*

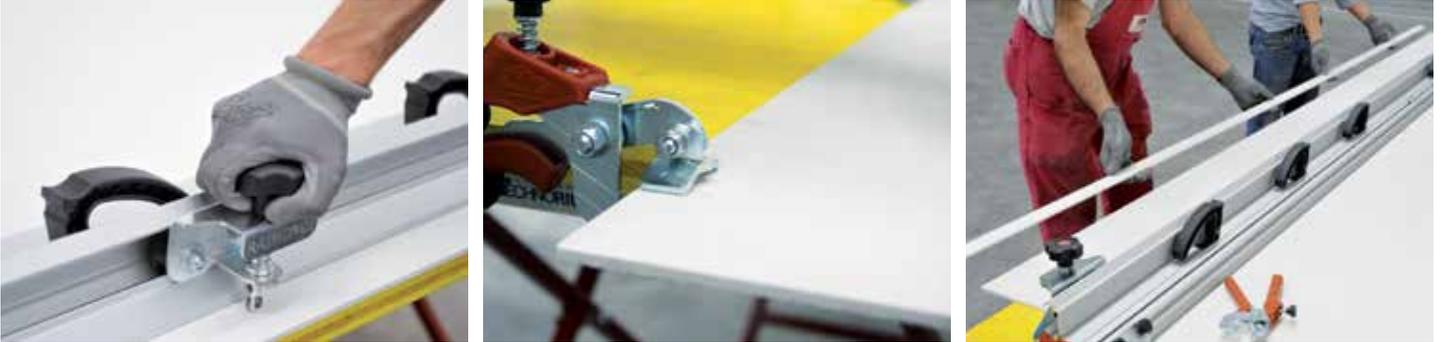
LIST OF TOOLS & MATERIALS NEEDED FOR PORCELAIN PANEL INSTALLATION JOBS

- 
- Tape measure
 - Framing square
 - Marking pencil / china marker
 - Chalk line
 - Grid (graph) paper
 - Carpenter's triangle
 - Safety glasses
 - Safety gloves
 - Knee pads
 - Buckets
 - Drill and mixing paddle
 - Spray bottle
 - Trowel specific to large panels
 - 2 x 4
 - Rubber mallet
 - Sponges
 - Abrasive stone
 - Manual tile cutter
 - Tile nipper
 - Grout float
 - Cheesecloth
 - Tile spacer / Leveling system
 - Water
 - Thin-set mortar
 - Grout
 - Painter's tape
 - Grout haze / film remover
 - Grout sealer
 - StainBlocker for grout
 - Paper towels

Manipulation FULL CUTS, CUT OUTS, & MITERED EDGES

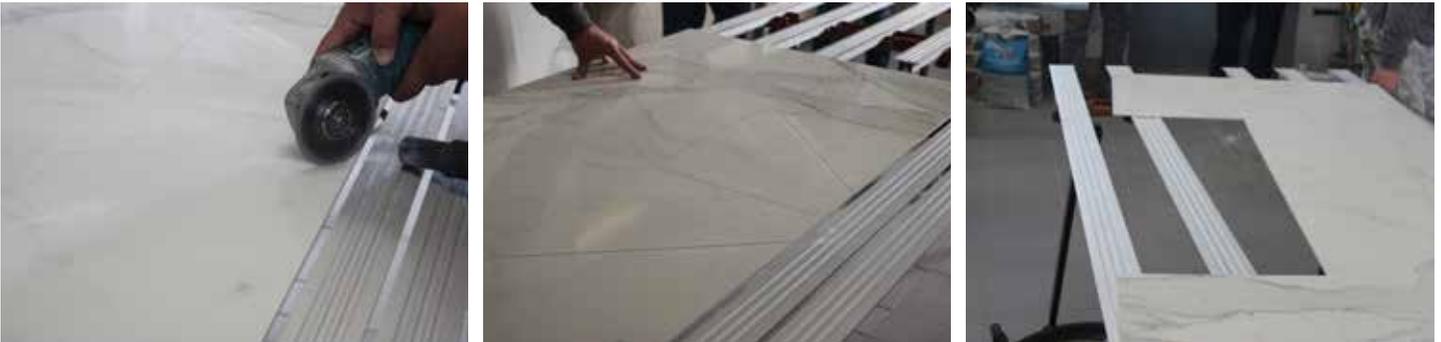
- The “score and snap” is the preferred method for straight cuts (from one end of the panel to the other) using a recommended tool.

See page 13-15 for recommended tool providers



- When planning a cut that will be the full length of the panel, either with a plunge cut, or starting at the edge, mark and drill a relief hole at the termination point of the cut, then cut towards the relief hole. Properly support piece equally across entire surface of the piece when setting in mortar and prior to handling for installation.
- When planning a plunge cut, drill a relief hole with a electroplated core bit at the termination point of the cut, prior to beginning the cut. Always cut towards the relief hole.
- When planning a “U” shaped cut, mark, and drill relief holes where the cut lines will intersect. Always make the shortest cuts first, leaving your waste/dropout attached to the largest part of your desired piece for the final cut.
- When planning an “L” shaped cut, mark and drill relief holes where the cut lines will intersect, always cut the shortest length first, and cut towards the relief hole.

See page 8 for cutting diagram



- When manipulating large porcelain panels, a variable speed right angle grinder is strongly suggested to reduce vibration. Electroplated diamond blades or electroplated diamond drill bits should be used for various cuts and manipulations.

See page 13-15 for recommended tool providers

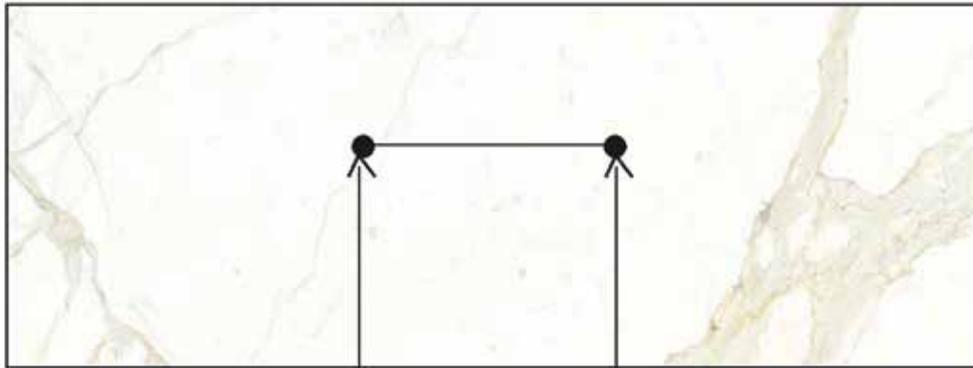


/ Manipulation FULL CUTS, CUT OUTS, & MITERED EDGES

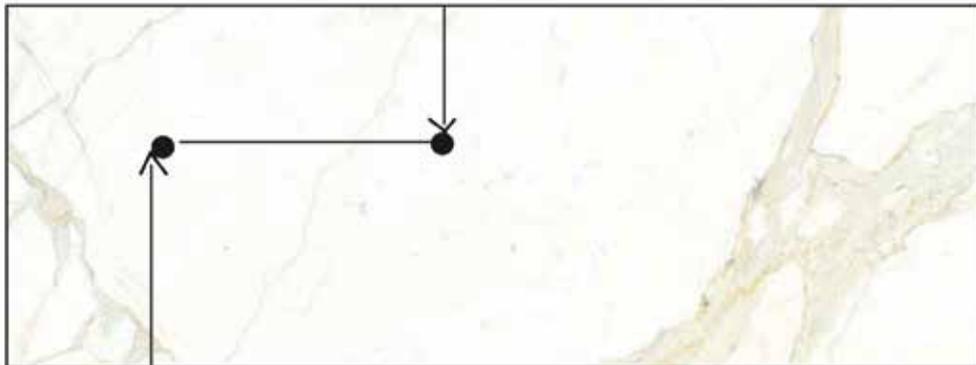
IMPORTANT: Always cut towards the relief hole.



When cutting a “U” shaped piece, mark, and drill relief holes where the cut lines intersect. Always make the shortest cut first.



When cutting an “L” , drill relief holes where the cut lines intersect, always make the shortest cut first.



Color matched or tinted polyester, epoxy compounds or equivalent are often used to fill edges and bring the pieces together to form a smooth transition.



ALWAYS PROPERLY SUPPORT EACH PIECE PRIOR TO INSTALLATION.

Manipulation FULL CUTS, CUT OUTS, & MITERED EDGES

- For circular cut outs, a circular electroplated diamond core bit must be used with a variable speed grinder or drill
See page 13-15 for recommended tool providers



- For straight line cut outs, a variable speed grinder with electroplated diamond blades must be used. Relief holes or cuts before planning a square or rectangular shape are necessary.



- When possible, it is best to fabricate niches and holes after the panel is already installed with thin set on wall or floor. If it is not possible to cut holes or square/rectangular cuts (fireplace, sink, etc.) before the panel is installed, create full support with plywood or MDF panel template with same shapes and cuts to attach and transport the porcelain panel. Support panels should only be detached when porcelain panels are fully bonded to the substrate.

- It is also possible to move panels with proper moving tools made of multiple suction cups to avoid tension of the panel after it is cut.



- Material can be mitered using proper tools. Colored or tinted compounds such as polyester, epoxy, or equivalent are often used to fill edges and bring the 45 degree miter cuts together.

- Material can be bullnosed the same as regular porcelain.



Floor / Wall Installation



- Large porcelain panels can be installed over concrete or other suitable substrates. You must honor all expansion joints or any defects in the substrate and mitigate prior to installation.
- Substrate should be a minimum of ¼" over 10 feet in flatness.
- The back of the panel and substrate should be spread the same direction at the shortest distance with a modified LFT thin set mortar to achieve 100% coverage.



- Self-leveling systems are required to achieve desired flatness between joints. Fill any voids with the mortar for complete support.
- Recommended tools and techniques need to be used to ensure full bond of the panel. Recommended techniques should be followed to move air out from underneath the panels.
- The setting material manufacturers have vast experience in the installation of porcelain tiles and large porcelain panels. Accordingly, we strongly recommend that the installer should contact the relevant setting material manufacturers and seek their advice prior to installation of our large porcelain panels.

See referenced manufacturers page 13-15 for contact details.

- It is very important to spread thin set the same direction on both the substrate and the panel, the shortest direction of panels. Thin set brands we recommend are: LFT by Mapei, Prolite by Custom, 254 Platinum by Laticrete, and x77 Walls & x78 Floors by Ardex Tec.

See referenced manufacturers page 13-15 for contact details.

- Place tile into the fresh mortar and firmly press to cause the ridges to flatten out and come together into a continuous void free bed. Install desired spacers/levelers of preferred grout joint design width.

- Polymer added sanded and unsanded grout, epoxy grout, silicone, or polyurethane can be used to fill the joints. If using

- Epoxy grout, make sure to follow proper cleaning instruction within the manufacturers' specific time frame. NOTE: Recommended 1/8" grout joint width should be maintained throughout the entire installation. Countertop seams can be butted.

We do not accept any responsibility nor do we recommend a particular method of installation. It is the responsibility of the installer/buyer to design the tiling system based on the advice obtained from the setting material manufacturer.



See page 13 for recommended trowels



Example of proper full mortar coverage

/ Exterior Installation

- Large porcelain panels are ideal for exterior cladding of walls and vertical applications.
- We offer mechanical and bonded techniques.

Contact manufacturer for further information or to become a certified installer.



/ Countertop Fabrications

- Large porcelain panels are ideal for countertop installation with the proper substrate.

Contact manufacturer for further information or to become a certified installer.



Recommended Installation Accessories

TOOLS

RUSSO TRADING COMPANY INC

RUSSO TRADING COMPANY,
INC. 4235 N 127th St.
Brookfield, WI 53005
Phone 855.782.8665
Fax 262.790.2177
www.RTCproducts.com

OMEGA DIAMOND INC

OMEGA DIAMOND INC. 10125
Ophir Road Newcastle, CA
95658 Phone 888.996.4777
Fax 530.885.3785
www.omegadiamond.com

ABACO MACHINES USA (BOOM, PINCH CLAMP)

ABACO MACHINES
USA 14508 S Garfield
Ave Paramount, CA
90723 Phone
310.532.0366 Fax
310.532.0499
www.abacomachines.com

PREMIUM NOTCH TROWEL BY SUPERIOR BILT

PREMIUM NOTCH TROWEL BY SUPERIOR BILT
7711 Center Ave Ste 500
Huntington Beach, CA 92647
TF 800.272.8786
Phone 562.598.8808
Fax 800.200.7765
www.custombuildingproducts.com

SIGMA / ETM TOOLS

European Tile Masters, Inc.
27 Copper Ridge Rd
Trout Creek, MT. 59874
Phone 954.917.3599
Fax 954.917.3539
Website
www.europeantilemasters.com
www.toolsfortile.com

RAIMONDI TOOLS

Donnelly Distribution LLC
N 56 W 24790 N Corporate Circle
Unit A Sussex, WI 53089
TF 800.625.6686
Phone 262.820.1212
Fax 262.820.1226
www.donnelydist.com

TROWELS

FLOW RIDGE TROWEL BY RAIMONDI

DONNELLY DISTRIBUTION
LLC N63 W 22611 Main Street
Unit C Sussex. WI 53089
TF 800.625.6686
Phone 262.820.1212
Fax 262.820.1226
www.raimondiusa.com

EURO NOTCH TROWEL BY ETM

EUROPEAN TILE MASTERS, INC.
1830 Vista Way
Margate, FL 33063
Phone 954.917.3599
Fax 954.917.3539
www.europeantilemasters.com
www.toolsfortile.com

Recommended Installation Accessories

BLADES/BITS

CYCLONE

DIAMAX INDUSTRIES
949 W Marietta St
X100 Atlanta, GA
30318 Phone
404.817.3232
www.diamaxinc.com

WEHA

WEHA USA
625 Griffith Rd Suite
120 Charlotte, NC
28217 Phone
704.940.0115
www.wehaus.com

BUILDING PRODUCTS

WEDI BOARD

WEDI Corporation
171 S Gary Ave
Carol Stream, IL 60188
Phone 877.933.wedi
(9334) Fax 847.357.9819
www.wedicorp.com

SCHLUTER SYSTEMS (KERDI BOARD)

SCHLUTER SYSTEMS L.P.
194 Pleasant Ridge Road
Plattsburgh, NY
12901-5841 TF
800.472.4588
Fax 800.477.9783
www.schluter.com

USG (CEMENT BOARD)

USG US Corporate Office
550 West Adams Street
Chicago, IL 60661
Phone 312.436.4000
www.usg.com

HARDIEBACKER BOARD

Available at most local hardware stores

ADHESIVES (COLORED EPOXY GLUE, ETC.)

AKEMI

INNOCHEM
Innovative Chemicals
4030 Pleasantdale Road
Suite F Doraville, GA 30340
Phone 770.409.8789
Fax 770.409.9096
www.akemina.com

TENAX

TENAX USA
625 Griffith Rd Suite
120 Charlotte, NC
28217 Phone
704.583.1173
www.tenax4you.com

Recommended Installation Accessories

BOSTIK

BOSTIK, INC.
11320 W Watertown Plank
Road Wauwatosa, WI 53226
TF 800.762.7845
www.bostik-us.com

ARDEX

ARDEX Americas
400 Ardex Park Drive
Aliquippa, PA 15001
Phone 888.512.7339
www.ardexamericas.com

TEC

H.B. FULLER CONSTRUCTION
PROJECTS INC. 1105 S Frontenac Street
Aurora, IL 60504
TF 800.552.6225
Phone 562.598.8808
www.tecspecialty.com

SETTING MATERIALS (THIN SET, GROUT, ETC.)

MAPEI

MAPEI Americas
Headquarters 1144 E.
Newport Center Drive
Deerfield Beach, FL 33442
TF 800.992.6273
Fax 954.246.8805
www.mapei.us

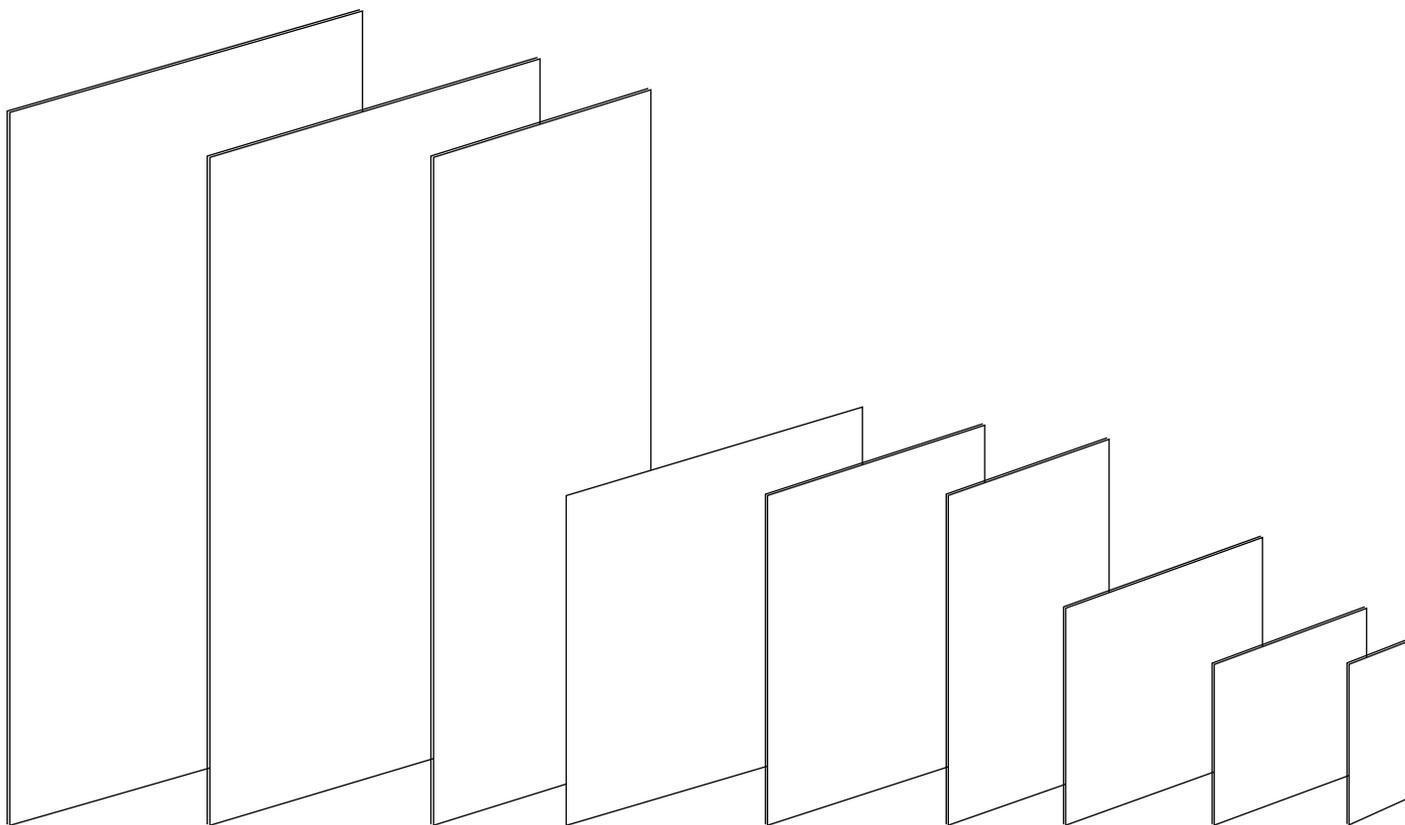
LATICRETE

LATICRETE International,
Inc. One LATICRETE Park
North Bethany, CT
06524-3423 USA TF
800.243.4788
www.laticrete.com

CUSTOM BUILDING PRODUCTS

CUSTOM BUILDING
PRODUCTS 7711 Center Ave
Ste 500 Huntington Beach,
CA 92647 TF 800.272.8786
Phone 562.598.8808
Fax 800.200.7765
www.custombuildingproducts.com

PRODUCT	SIZE (IN.)	BOX PIECES	BOX SF	PALLET BOXES	PALLET SF	THICKNESS (MM)	WEIGHT LB/Box
Large Porcelain Panel	120 x 60	1	48.44	12	581.256	6	139.4604
	120 x 40	1	32.29	16	516.672	6	92.97357
	60 x 60	1	24.22	24	581.256	6	69.72907
	60 x 40	1	16.14	40	645.6	6	46.512
	60 x 30	2	24.22	25	605.475	6	69.72907
	40 x 40	2	21.53	20	430.56	6	61.98238
	30 x 30	3	18.16	36	654.107	6	52.29736
	30 x 15	6	18.16	36	654.107	6	52.29736



128" x 64"* 120" x 60" 120" x 40" 60" x 60" 60" x 40" 60" x 30" 40" x 40" 30" x 30" 30" x 15"

*Available upon request.

Technical Specifications

FULL-BODY MANUFACTURED NATURAL STONES WITH PORCELAIN TECHNICAL FEATURES

PHYSICAL - VISUAL PROPERTIES	ASTM TEST	INDUSTRY STANDARD	RESULTS
Water Absorption	C373	< 0.5%	< 0.1%
Thickness Dimension	C499	Range - 0.04 Inc. Max.	≤- 0.04 Inc.
Facial Dimension	C499	- 0.025%	≤- 0.025%
Warpage Average Diagonal	C485	- 0.40%	≤- 0.40%
Warpage Average Edge	C485	- 0.40%	≤- 0.40%
Wedging	C502	- 0.25%	≤- 0.25%
Bond Strength	C482	≥ 0.50 psi	≥ 0.200 psi
Breaking Strength	C648	≥ 250 lb.	≥ 350 lb.
Hardness (Mohs)	Scratch Test (No Regulation)	Range 0 - 10	≥ 7
Visible Abrasion Resistance for Glazed Tiles	C1027	No Requirement Range 0 - 5	Class 3 - 4
Deep Abrasion Resistance for Un-Glazed Tiles	C1243	Impervious (Porcelain) Class P1: ≤ 175 mm	≤ 175 mm
Frost Resistance	C1026	No sample must show alterations to the surfaces	No evidence of damage
Chemical Resistance	C650	No Requirement Range E - A	Class A
Stain Resistance	C1378	No Requirement Range E - A	Class A*
DCOF	BOT 3000	≥ 0.42*	≥ 0.42 - ≥ 0.60*
Aesthetic Classification	Visual Evaluation Shade & Texture	No Requirement Range V0 - V4	V2 - V3
Robinson Test	AC627	Classified as "Extra Heavy"	

* All values are given for Matte or Honed Material.