



GeometroTM



Official Distributor

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www.AquaBluMosaics.com

Applications



Interior Walls



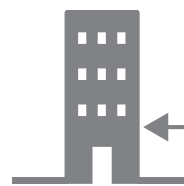
Interior Floors



Bath Walls
Steam Room Applications



Bath Floors



Exterior Walls



Exterior Floors

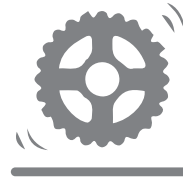


Pools & Spas Full Submersion

Specifications



Lineal Thermal Expansion Tested
(Mantel face and hearth, not
approved for interior firebox)



Abrasion Resistant



Frost Resistant



Chemical Resistant



Recyclable

RECYCLED GLASS

Geometro spans 129 striking colors - including options with 2 finishes: polished and matte. Crafted entirely from recycled glass that is ground to fine powder and molded under extreme pressure and heat. Colored with inert natural minerals & enamel, it is full body product immune from fading or discoloration, showing equal color thru & thru.

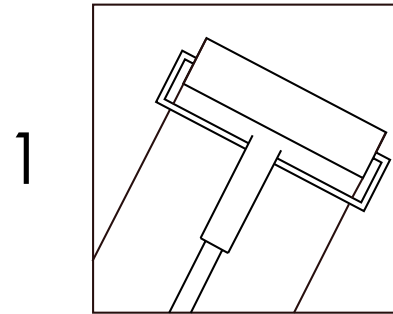
Tested for hardness and scoring a Mohs hardness of 5.5, excellent resistance to UV, common household chemicals, foot traffic, stains, and frost while delivering a slip resistance of R9, it is an excellent choice for both vertical and horizontal surfaces, both indoors and outdoors as well as fully submerged pools & spas.

98%  Recycled
Glass

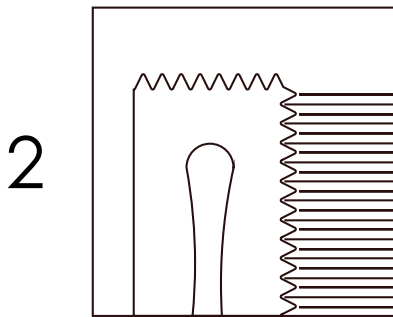
INSTALLATION GUIDE

Follow Each Step as directed for best results.

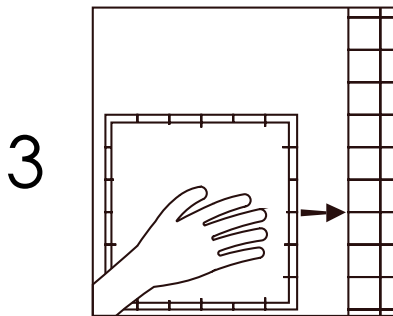
Follow each step as directed for best results.
It is strongly suggested to dry fit all inlays before applying thin set.
Review pattern diagrams prior to installation; this will help to view each pattern in the inlay space available & catch any possible mistakes.



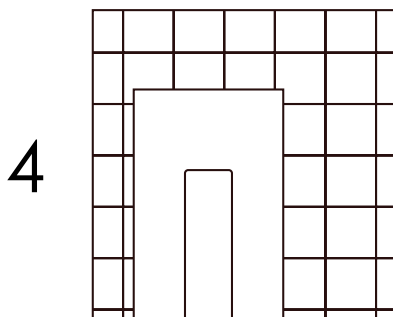
Apply a crack insulation membrane over substrate per the membrane manufacturer's instructions.



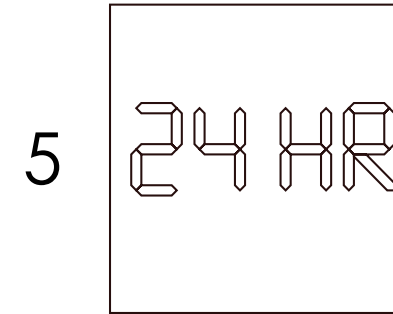
Use a V-notch trowel to apply a white glass tile thin-set mortar.
Comb notches in one direction.



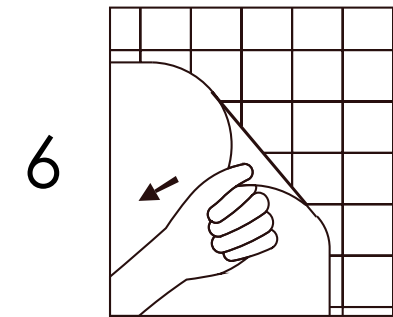
Set sheets into thin-set
* either face-tape side out or mesh side to the wall.
* Geometro shapes 10mm or above come face-taped. 10mm & below are back mesh mounted.



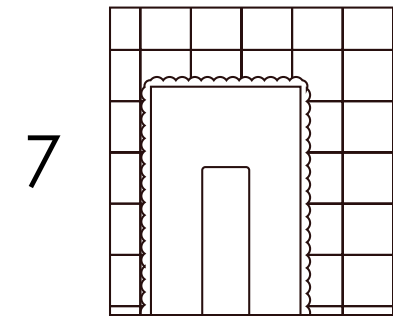
Lightly tap sheets with rubber grout float.



Wait 24 hours (minimum).



Remove film-face and remove excess thin-set from grout joints with a razor knife if necessary.



Apply grout per grout manufacturer's instructions.

All materials should be used according to manufacturer's instructions. If the mosaic includes glass tiles, please note that due to the translucent nature of glass, the color of the bonding material will impact the ultimate look of the tile. We recommend the use of specific white bonding mortars; some mixed with specific latex admix.

See the following list for required thin-set and follow manufacturer's recommended cure times for all setting materials. Pools, spas and all submerged applications require a minimum 21-day cure time after grouting and before submersion or exposure to heavy water use.

Although we require the use of highest performing setting materials for installing our products, occasionally, due to the transparent and/or light translucent nature of some of our products, visible effects, also known as "ghosting", may occur behind glass tiles.

When Mixing Setting and Grouting Materials:

- 1 Measure liquid and powder per manufacturer's recommendations.
- 2 Machine mixing will provide more consistent results.
- 3 Do not exceed 300 rpm or manufacturer's recommendations.
- 4 Setting and grouting materials need to slake (set) 10 to 15 minutes after mixing and be remixed before use.

Acceptable Setting Systems (white)

- Custom Building Products: MegaFlex Crack Prevention Mortar
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- Flextile: 52 Versatile Floor Mortar
- Hydroment ReFlex Ultra-Premium Latex-Modified Thin Set Mortar
- Kerakoll: H40 Tenax Single Component Thin-Set
- Laticrete: 254 Platinum Multipurpose Thin Set Mortar
- Mapei: Adhesilex P10 mixed with Keraply mortar additive
- TEC (H.B. Fuller): Super Flex Premium Performance Universal Latex-Modified Thin-Set Mortar
- FOR METAL (Geometro 2.0): Litokol LitoElastic Epoxy

Unacceptable Setting Systems

- Organic adhesive (mastic) – due to yellowing and low bond strength
- Epoxy – due to low flexibility, as well as degeneration in UV sunlight

Movement Joints

Movement joints are essential for the success of most tile installations. Follow recommendations on Movement Joints EJ171-07 in the "2008 TCA Handbook for Ceramic Tile Installation." Movement joint requirements will vary depending on substrate, climate and size of installation. An architect or design professional should be consulted when specifying the exact number and location of each movement joint. Saw-tooth joints are not recommended. Certain application may require a different type of sealant.

Acceptable Flexale Joint Fillers

- Hydroment: Chem-Calk 900 One-Part Urethane Sealant
- Kerakoll: Sigibuild PU Poly-Urethane Sealant
- Laticrete: Latasil 100% Silicone
- Silaflex: 1A or 2C Polyurethane-based Sealant

Grout

Install grout mix according to manufacturer's instructions. Grout should be full and uniformly finished. Due to the impervious quality of glass, the grout will take longer to begin setting-up. For initial cleaning of grout from the tile face, use clean, dry cheesecloth. This wicks additional moisture from the grout and avoids washing out the joints. Use on a clean, damp sponge for the final cleaning and smoothing of the joints. For final polishing of excess haze use a clean, soft cloth.

Acceptable Grouts

- Custom Building Products: Prism SureColor Grout (can go in pools)
- Custom Building Products: Fusion Grout
- Custom Building Products: Polyblend Sanded Tile Grout
- Flextile: 600 Polymer Sanded Floor Grout
- Hydroment: Sanded Ceramic Tile Grout
- Kerakoll: Fugabella 2-12
- Laticrete: 1500 Series Tile Grout or Equivalent
- Mapei: Ker200 Series and Ker700 Series Ultra/Color
- Tec: AccuColor Premium Sanded Tile Grout
- Litokol Starlike (for LeMer)
- Litokol Starlike grout or Customs Prism (for Gunmetal - Geometro 2.0)

An Acrylic grout admix can improve freeze-thaw resistance. Check manufacturer's recommendations.

Unacceptable Grout

- Epoxy Grout – due to low flexibility, as well as degeneration in UV sunlight
- Non-sanded grout – due to shrinkage
- Consult grout manufacturers before considering blue, green or red grout in submerged applications.

Anti-Fracture/Waterproofing Membranes

- Aquafin 1K and 2K/M: Cementitious waterproofing system
- Custom Building products: RedGuard Waterproofing and Crack Prevention Membrane
- Hydroment: Gold Anti-fracture and waterproofing membrane
- Laticrete: 9235 waterproof & anifracture membrane
- Tec: T1-324 Triple-Flex waterproofing/crack isolation membrane
- Xypex: Concentrate

We do not recommend membranes directly behind the setting material when installing translucent or transparent glass tile.



Test Results of ROHS Directive

ppm = Parts Per Million | ND = Not Detected

Tested Elements	Results
CADMIUM (cd)	ND
LEAD (cd)	ND

Radioactivity of Building Materials

Radioactivity of building materials were evaluated in accordance with GB 6566-2010, type A decoration materials.

Tested Elements	Results
RADIUM-226 Radioactivity Rate Activity, Bq/kg	4.906
THORIUM-232 Radioactivity Rate Activity, Bq/kg	2.999
POTASSIUM-40 Radioactivity Rate Activity, Bq/kg	48.61

Type A Decoration Materials

Radioactivity of building materials were conform to requirements specified in GB 6566-2010, type A decoration materials.

Requirements	Results
IRRADIATION < 1.0	< 0.1
EXTERNAL IRRADIATION < 1.3	< 0.1

Recycled Content of Material

The factory declares that the contents of enamel glass mosaic are silica (SiO₂) and zirconium silicate; and all materials are recycled from collet. No other new raw materials are added during the manufacturing process. The recycled content of materials is 98%.

Water Absorption Test (ISO 10545-3:1995)

Specimen dimensions: 20mm x 20mm x 7mm, 9pcs in each group.

Group No.	Test Results	Average
1	1.00	
2	0.43	
3	0.49	
4	0.57	
5	1.09	0.67
6	0.66	
7	0.51	
8	0.61	
9	0.63	
10	0.72	

Resistance to Stain Test (ISO 10545-14:1995)

Specimen dimensions: 20mm x 20mm x 7mm, 15pcs.

Group No.	Green Staining	Iodine 13g/L	Olive Oil
1	5	5	5
2	5	5	5
3	5	5	5
4	5	5	5
5	5	5	5

Thermal Stability

Specimen dimensions: 20mm x 20mm x 7mm, 50pcs.

Test Items	Test Method	Test Results
Thermal Stability	With reference to GB/T 7697-1996	No cracking/breakage on surface of all test specimens
Thermal Shock Resistance	ISO 10545-9:2013	Fully resistance
Frost Resistance	ISO 10545-12: 1995/Cor I: 1997	Fully resistance

Coefficient of Friction

Test method: GB/T 4100-2006 Annex M determining the coefficient of friction of ceramic tile specimens: 170mm x 170mm, 3pcs. All test samples were cut from the products with the size of 320mm x 320mm.

Test Items	Test Results
Coefficient of Friction for Dry Surface	0.77
Coefficient of Friction for Wet Surface	0.50

Resistance to Surface Abrasion

Test method: Refer to ISO 10545-7:1996 Ceramic tiles-part 7: Determination of resistance to surface abrasion for glazed tiles. Specimens: mosaic. Test Results: After 1500 revolutions, visual failure occurred.

Chemical Resistance

Test method: GB/T 4100-2006 Annex M determining the coefficient of friction of ceramic tile specimens: 170mm x 170mm, 3pcs. All test samples were cut from the products with the size of 320mm x 320mm.

Aqueous Test Solutions	Test Results
Household Chemicals	Ammonium Chloride solution, 100g/l
Swimming Pool Salts	Sodium Hypochlorite solution, 20mg/l
Low Concentrations Acids & Alkalis	Hydrochloric Acid solution, 3% (V/V)
	Citric Acid Solution, 100g/l
	Potassium Hydroxide solution, 30g/l
Visual Examination	Class: GA
Visual Examination	Class: GA
Visual Examination	Class: GA
Visual Examination	Class: GA
Visual Examination	Class: GA

Water Absorption Test (ASTM C 373)

Samples were dried to a constant weight in an oven at 150 C, then cooled and weighed. Then were immersed in distilled water (boiling vigorously for 5 hours before cooling gradually to a total elapsed time of 29 hours). Samples were removed from water, wiped dry and immediately reweighed.

SAMPLE NO.	DRY WT. (GRAMS)	WET WT. (GRAMS)	PERCENT WATER ABSORPTION	AVERAGE
1.	31.46	31.46	0.00%	0.00%
2.	31.30	31.30	0.00%	
3.	29.87	29.87	0.00%	
4.	30.44	30.44	0.00%	
5.	30.78	30.78	0.00%	

Reference:

ANSI A 137.1 (General) - When tested as described in ASTM C 373, the tile in the sample shall be impervious for porcelain paver tile and shall be impervious, vitreous or semi-vitreous for natural clay paver tile.

Impervious Tile	(0.5% or less Water Absorption)	<input checked="" type="checkbox"/>	Materials Tested Comply with Specifications.
Vitreous Tile	(0.5%-3.0% Water Absorption)	<input type="checkbox"/>	Materials Tested Did Not Comply with Specifications.
Semi-Vitreous Tile	(3.0%-7.0% Water Absorption)	<input type="checkbox"/>	No Established Criteria for Acceptable Limits.
Unglazed Quarry Tile	(Max. 5.0% Water Absorption)	<input type="checkbox"/>	For Information Only.



Moisture Expansion (ASTM C-370 *Modified)

Each specimen was cut as possibly close from the center of a tile to an approximate facial dimension of 3"-3/4" x 3/4", then measured to an accuracy of 0.0001 inch. Specimens were put into an autoclave and subjected to a steam pressure of 150 PSI for five (5) hours. After pressure was released by opening a blow-off valve, the specimens were dried to a constant weight and remeasured. *Modification: Sample Size Limitation - 0.50 Hexagon Glass Buttons

SPECIMEN NO.	LENGTH INITIAL	LENGTH FINAL	PERCENT MOISTURE EXPANSION	AVERAGE
1.	0.38850	0.38850	0.00%	0.01%
2.	0.38735	0.38740	0.01%	
3.	0.39740	0.39740	0.00%	
4.	0.39950	0.39960	0.03%	
5.	0.39990	0.39990	0.00%	

<input type="checkbox"/>	Materials Tested Comply with Specifications.
<input type="checkbox"/>	Materials Tested Did Not Comply with Specifications.
<input type="checkbox"/>	No Established Criteria for Acceptable Limits.
<input checked="" type="checkbox"/>	For Information Only.

