**Preparation**

1. Be sure to clean the surface you are installing tile on to. Any dirt or debris can affect the adhesive’s ability to adhere your mosaic tiles to the substrate. If the floor is not level, then use self-leveling underlayment (a cement product available at any home improvement store) to correct the problem.

2. Measure and mark the center points of the vertical and horizontal dimensions of your wall or floor.

3. Snap a chalk line between these points to create your centerlines. Check the intersection of the chalk lines with a carpenter’s square to ensure that it is fully square.

4. Layout your tiles without adhesive from your intersection point towards the end of the wall. If your layout results in pieces that are too small to cut along the edges, then adjust your centerlines accordingly and re-snap chalk lines.

**Installation**

**Mixing Thin-set**

1. Be sure to follow mixing directions on bag on all points. You need allow the thin-set to sit between mixings - as the instructions describe - because it is during that time that the cement slakes. If you do not do this, the bonds will be weak and the thin-set will not reach maximum adhesive performance.

2. **DO NOT ADD EXTRA WATER ONCE MIXED.** This will weaken the adhesive strength of the MAPEI Adesilex P10 - specifically formulated for glass tile applications. If the thin-set is drying up, then remixing will return some of its fluidness.

3. Placing a damp towel over the bucket used to mix the thin-set will extend its “pot life”.

**Applying Thin-set**

1. Using the flat side of the trowel spread the adhesive onto the working area.

2. Only apply as much area as you can tile in the next 15 to 20 minutes (The open time for Adesilex P10 is 25 to 35 minutes). If you are not able to tile over thin-set that you have applied within this period, then you must scrape the adhesive off the surface and reapply.

3. Comb the notched side of the trowel across the thin-set. This ensures that an even and proper amount of thin-set is applied to your substrate.

4. Take the flat side of the trowel and knock down the ridges of thin-set so that the surface is covered evenly with adhesive.

5. This ensures that shadows from the ridges are not seen through the tile after installation.
**Setting Sheets of Tile**

1. Work from the intersection of your chalk-lines outwards, one quarter section at a time. Make sure not tile yourself into the room if you are working on the floor.
2. Before setting a sheet of tile down, inspect that the individual tiles are in line and that the sheet is square. Pluck any individual tiles from the sheet that are askew. They can be replaced once the sheet is set.
3. When setting the tiles, butt them up to the adjacent tiles, and then press and twist the tile into the thin-set away from the already set tiles. This prevents thin-set from squeezing up into the grout lines.
4. Clean off as much thin-set that comes up through the grout lines as possible. The less thin-set that dries in the grout lines, the less clean up will be required before grouting.
5. Place tile spacers where tiles butt up next to one another. This helps to ensure straight, uniform grout lines.

**Cutting Tile**

1. Use your Leponitt mosaic tile cutter to trim the size of your tiles along the edges of your wall/floor or around fixtures.
2. Use a rubbing stone to remove any excess chipping or burrs left on the tile from the cutting process.

---

**Grouting**

---

**Preparation**

We recommend using our unsanded Keracolor U Grout for glass tile installation. Grout joints of 1/8” or less require unsanded grout because the sand grains are too large to create a strong bond in sanded grouts.

1. Allow thin-set to cure for 24 to 48 hours (1 to 2 days) prior to grouting. The humidity and temperature of the installation environment will affect curing time.
2. Examine the grout lines, then remove any thin-set that has dried in the grout line in excess of 40% of the thickness of the tile with a carbide triangle grout saw.

**Mixing**

1. Be sure to follow mixing directions on bag on all points. You need to allow the grout to sit between mixings – as the instructions describe - because it is during that time that the cement slakes. If you do not do this, the bonds will be weak and the grout will not reach maximum adhesive performance and color consistency.
2. **DO NOT add extra water once mixed.** This will dilute the grout and possibly bleed the color. Remixing the grout should return some of its fluidness.

**Applying**

1. Use a grout bag to spread grout directly into the joint or use a grout float diagonally across the face of the tiles. You can use an old toothbrush handle or your finger to spread the grout in those hard to reach areas. Make sure that all grout joints are completely filled, leaving no air pockets or voids. **Only apply up to 25 sq. ft. at a time.**
2. Grout dries very quickly and is difficult to squeeze out of the grout bag within an hour. Therefore, mix small batches at a time to prevent wasting the grout.

**Cleaning**

1. Wipe off excess grout with your grout float, held at a 45° angle, diagonally in relation to the grout joints. This will prevent the float from digging the grout out of the joints. Be sure to remove as much as possible.
2. Wait 15 to 20 minutes after using the grout float to wipe the surface before cleaning.
3. Soak a grout sponge with clean water, then wring thoroughly. It should be barely damp. Remove the remaining grout by wiping diagonally in relation to the joint lines, and be sure to rinse the sponge often. **DO NOT OVERWET THE SPONGE. IT WILL DISCOLOR THE GROUT.**
4. Repeat until the grout joints are smooth and level with the tiles.
5. The grout will dry to haze on the face of the installed tiles. Take a soft, dry cloth or cheesecloth and polish this haze off the surface of the tiles. **DO NOT ALLOW WATER NEAR THE GROUT FOR 48 HOURS.**
Grout Sealing

1. Though not required, sealing your grout joints is highly recommended. It prevents liquid absorption and thus the possibility of staining.

2. Follow the grout lines with a small paintbrush or cloth dipped into the grout sealer while wiping off any excess that may spill onto the tiles. Make sure to wipe the tiles or you will be left with a haze that will take away from the beauty of the glass mosaic tiles.

3. Grout sealer is not a permanent protector, and will need to be reapplied. However, this length of time is dictated by the amount of foot traffic/wear and tear that the tile is subjected to. For example, a kitchen backsplash may not need to be sealed at all, or if it is, then only once. On the other hand, a floor tile in a foyer may need sealer reapplied every 6 to 12 months.

Caulking

Glass tile has a high rate of expansion. Therefore, use color-coordinating caulk in the grout joints where:

- There is a change of plane
- Two walls or a wall and a floor meet
- Two different substrates meet on the same plane
- Tile butts up next to a non-tile obstruction i.e. countertops, cabinets, toilets, or showers

Maintenance

Abrasive cleaners should not be used. Use a glass cleaner such as Windex and a lint free soft cloth.

Glossary

**Adesilex P10** - A pure white, polymer-modified thin-set that has been specifically formulated for use with glass tile installations. The true white color prevents the discoloration of the tiles by the thin-set.

**Curing** - The process of becoming hard or solid by cooling, drying, or crystallization; "the hardening of concrete". We recommend 1 to 2 days curing time for MAPEI Adesilex P10.

**Grout** - A thin, coarse mortar poured into joints between tiles to fill them and consolidate the adjoining tiles into a solid mass. Available in unsanded and sanded varieties. We recommend unsanded grout for glass tile because of the small – less than 1/8” – grout joints and to prevent scratching of the tiles’ surface.

**Notched Trowel** - Designed to apply tile adhesive to vertical or horizontal surfaces quickly and evenly without mess.

**Open Time** - Amount of time that thin-set will remain usable if left on the wall/floor i.e. MAPEI Adesilex P10 has an open time of 25 to 35 minutes.

**Pot Life** - Amount of time that mixed cement will remain usable if left in the bucket i.e. MAPEI Adesilex P10 has a pot life of 3 to 4 hours.

**Slaking** - The process that cements undergo as they interact with water that gives it strength. Allowing grout or thin-set to sit and slake after mixing is very important in ensuring maximum adhesive strength.