



Using Titanium Dioxide Coating for Laser Engraving on Glass or Tile

About Titanium Dioxide Coating for Laser Engraving

When laser engraving tile or glass, you can use a Titanium Dioxide coating; this process provides a high-detailed engraving with good black line contrast and is better than Cold Galvanizing Compound (it does not smell bad). Also, laser engraving should always be done in a well-vented area.

What You'll Need

- [Titanium Dioxide \(available on Amazon\)](#)
- Isopropyl Alcohol (IPA) 99.9% pure
- Elmer's Washable Liquid School Glue
- Distilled Water
- Glass or plastic jar with a lid (for mixing and storage)
- **Applicators:** you can use any of the following ways to apply the Titanium Dioxide coating.
 - Airbrush (best way)
 - Fine mist spray bottle
 - Foam paint brush (takes lots of practice)



Method 1

Process for using Elmer's Washable Liquid School Glue (The Elmer's Washable Liquid School Glue acts as a binder, like paint). After drying, you must carefully handle the tile or glass. However, this mixture is less likely to smear than Method 2)

What You'll Need

- One part: Elmer's Washable Liquid School Glue
- Three parts: Distilled Water
- One part: Titanium Dioxide
- Glass or plastic jar (mixing and storage)

Mix in a Glass or Plastic Jar

Combine the Elmer's Washable Liquid School Glue with the distilled water and mix well.

Next, add glue/water mixture to the Titanium Dioxide and mix well by stirring or shaking the jar well (make sure the lid is securely on the jar before shaking).

Applying the Glue Coating

Next, clean the tile or glass with Alcohol. Let the surface dry, then apply the Titanium Dioxide mixture with an airbrush (best method) or the fine-mist spray bottle. You can also use a fine foam paint brush; apply an even coat (this takes practice) and let it completely dry before handling it carefully.

Method 2

Process for using Isopropyl Alcohol (with this process, be careful handling tile or glass because Alcohol does not act as a binder like glue and, once dry, is easy to mar (leave marks)).

- One part: Isopropyl Alcohol
- Three parts: Distilled Water
- One part: Titanium Dioxide

Mix in a Glass or Plastic Jar

Combine the Isopropyl Alcohol with the distilled water and mix well.

Next, add the alcohol/water mixture to the Titanium Dioxide and mix well by stirring or shaking the jar well (make sure the lid is securely on the jar before shaking).

Applying the Alcohol Coating

Next, clean the tile or glass with Alcohol, let it dry, and then apply the Titanium Dioxide mixture with an airbrush (best method) or the fine-mist spray bottle (using a paint brush does not work well with this method) and let completely dry before handling it carefully.