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PRODUCT INFORMATION SHEET

PORCELAIN RESTORATION GLAZE

GOLDEN Porcelain Restoration Glaze is useful for repairing earthenware, stoneware, bone china and fine porcelain. The glaze is most often used to fill in hairline cracks after broken pieces are re-assembled, It can be tinted with acrylic paints. Porcelain Restoration Glaze is water-based, fast-drying, sandable, and can be brushed or sprayed in multiple layers.

PRODUCT HISTORY

GOLDEN developed Porcelain Restoration Glaze at the request of several restoration companies looking for a system to replace the solvent-based coatings being used at the time. They desired a Restoration Glaze that was waterborne, fast-drying and developed a hard, tack-free film. It needed to be sandable and capable of being applied in multiple coats, either by hand or with an airbrush. A Gloss version was required to mimic a glazed porcelain film, while the Matte product could not interfere visually with the underlying color.

PRODUCT DESCRIPTION

GOLDEN Porcelain Restoration Glaze is a water-based product that is made in Gloss and Matte finishes. It is mainly used to repair fine porcelain objects, such as dishes, figurines and dolls. It may be removed with acetone when used on ceramics and other materials not sensitive to acetone.

GOLDEN Porcelain Restoration Glaze is intended for repairing non-functional objects only. **It is not intended for use on items that may be washed or hold food.** This product is meant to fill in fine, hairline cracks only. Areas of large losses, or physically attaching broken pieces together should be done with standard restoration materials, such as Milliput Putty or other 2-part epoxy products.

PRODUCT APPLICATION

Brush Application

For use as a brushed-on layer, Porcelain Restoration Glaze should not require thinning. However, it may be thinned with water to a suitable viscosity. Over-thinning may make it more difficult to achieve a uniform layer and water additions will necessitate multiple coats are applied to fill cracks

For color additions and final coatings, thinning with water is recommended. Depending on the viscosity of the product being used, the amount of water needed will vary. Matte Porcelain Restoration Glaze is thicker and requires more thinning than the Gloss version. Over-thinning may result in sags and runs.

Spray Application

Ideally, use airbrushes that have a nozzle size greater than .2mm. Smaller airbrushes will require more thinning, resulting in more shrinking during drying. Thinning is required for spray application. How much thinning is based upon the spray equipment size and air pressure. The Porcelain Restoration Glaze may be thinned up to 1:1 with water to improve sprayability, however, over-thinning may result in sagging or runs in the film. If you have over thinned with too much water, add more glaze to increase the consistency.

Use as a "Size"

GOLDEN Porcelain Restoration Glaze can be used to fill in minor cracks such as when pieces are glued together. Brush-apply the undiluted product to fill in the cracks, then sand with fine sandpaper until smooth. Testing various grades and types of sandpaper is recommended before employing this technique on an actual object to be restored.

After the crack is filled, and the resulting film is smooth, further repairs such as inpainting can be done followed by the application of thinned coats of GOLDEN Porcelain Restoration Glaze to return the object to its original luster (see final coating instructions below).

Color Additions

Any line of GOLDEN Acrylic Paint can be added to the GOLDEN Porcelain Restoration Glaze. Only the minimal amounts of acrylic colors should be added, as paints typically contain softer, more flexible resins. GOLDEN High Flow Acrylics provide the most intense color additions and have the hardest acrylic film of the GOLDEN paint lines. Using high levels of paint is acceptable but this will impact the overall film hardness.

Refer to the Lightfastness Rating of each paint, which is displayed on the product label. The vast majority of GOLDEN Acrylic Paints are either ASTM Lightfastness rated I, with some II rated colors, the main exceptions being our Fluorescent colors (ASTM LF V). Additionally, pigment information is found in the [GOLDEN Pigment Identification Chart](#).

Final Coating

GOLDEN Porcelain Restoration Glaze can be applied in multiple layers to develop a high luster. Building up several layers of the Gloss will produce a good sheen, which may be further buffed to develop even higher reflectance. Spray application is recommended since it will produce the smoothest film (see above for mixing instructions). The application of multiple coats is achievable but requires adequate drying between layers. Hairdryers and heat lamps can be employed to speed drying, but caution should be taken to avoid excessive heat or airflow, which can damage the overall sheen of the film.

Multiple coats will require delicate handling until the entire film is fully cured, which may take several days in extreme cases. Thicker layers require additional curing time as well, and it is advisable to apply several thin layers rather than one thick layer. When in doubt, allow 3 days between applications to assure the product has properly cured.

Based on our work with restorers, “Final Curing” should be achieved using a heat lamp. Although the piece may feel dry, it is not cured until all of the water and co-solvents have been driven out of the film. To accomplish this, allow the object to dry to the touch, and place it under a heat lamp for 2 to 4 hours. Avoid getting the object too hot. The surface should only feel warm. If this procedure is not done, it may lead to later softening of the film, especially in more humid climates. If a piece becomes softer over time, follow the final curing procedure under the heat lamp to return its hardness, and advise the client to consider placing the object in a climate-controlled chamber.

Note: Porcelain Restoration Glaze is not designed to withstand being fired in a kiln. Avoid any prolonged exposure to heat above 100F.

ADDITIONAL INFORMATION

Cleaning of the Restored Object

Restored objects should be stored with the utmost care and protection from UV exposure and other environmental conditions. Should the piece become dusty, **any method to remove the contaminant without water or solvents is advised as the first approach**, (i. e. using a feather-duster, soft bristle brush or soft cotton cloth). A small amount of

mild soap and water gently applied with a cotton cloth is the next best method. If the contaminant will not remove after the mild soap solution cleaning, it is advised that the owner hire a restorer or a professional art conservator to finish the job.

Removing Porcelain Restoration Glaze

In the event that the GOLDEN Porcelain Restoration Glaze needs to be removed, follow this removal procedure:

- Use pure acetone to solubilize and remove the glaze. PLEASE work in adequate ventilation while wearing the appropriate Personal Protective Equipment (PPE).
- clean, white, cotton material (T-shirt fabric works well) is cut to size and placed onto the section where the glaze is to be removed.
- Using a plastic bottle with a precision spout, carefully saturate the fabric with acetone, and then cover it with a piece of HDPE plastic sheeting if practical. The plastic helps slow the evaporation of acetone during the process.
- Continue adding acetone until the glaze transitions from tacky to liquid. Use the fabric to blot and remove as much of the glaze without damaging the object. Gentle rolling of the fabric can help pull the glaze off of the surface, and replace the fabric when it becomes saturated with glaze.
- Repeat as necessary until the glaze has been satisfactorily removed from the object.
- This procedure should be practiced several times before attempting on an actual restored object.

Disclaimer

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