

Metallics and Lusters

Introduction

Metallics (metals) – Gold, Palladium, Platinum, Red Copper, Gold Bronze, Chinese Bronze, Gun Metal. – Opaque

Lusters (overglazes) – Mother of Pearl, Rainbow Opal, and other varieties of colors.
– Transparent.

Before using overglaze or metals give the piece an extra coat of glaze, this will insure a solid surface for the overglaze to adhere to. Fire the glaze to a cone 04. A hotter firing will burn out any impurities that may cause the overglaze to become contaminated or flawed.

Application

Metals – Clean glaze surface with glaze cleaner using a lint-free cloth. Allow to dry (approximately 30 min.). Make sure brushes are cleaned with brush cleaner and completely dry. It is a good idea to clean brushes an hour before working with overglazes. Apply one thin coat. The color of the metal should be a carmel brown. Start in one spot and work to the left and right so that when the entire piece is covered, the metal meets wet to wet. Painting in one direction around a piece will have a greater chance of overlap, causing the metal to fire dull or burn off.

Lusters – Follow glaze and brush cleaning as described above. Lusters are usually applied in a swirl or “C” stroke. Take care not to overlap or touch up. Working quickly is important as luster tend to evaporate rapidly. If too much time is spent on application, rings may form resulting in white spots on the fired piece. When working on a detailed piece, make sure the luster does not pool in crevices. Always brush out the excess before the luster dries. Lusters do not mix, however, multiple colors and coats can be applied if they are fired in between coats.

Although brushes are the most commonly used method of applying lusters, other items such as sponges, pens, or roller sponges may also be used as long as they are cleaned properly.

Firing

The goal in firing is to reach a temperature that is high enough for the overglaze to adhere to the ware. If underfired, the overglaze will wipe off. If overfired, it will sink into the glaze and lose its brilliance or burn off completely.

Ventilation is imperative to achieving desired results in firing. It is recommended that china paints, decals or anything else requiring an 018-020 firing not be fired in a luster firing as the burn off of these items could cause contamination of the luster or metal. Strong fumes are generated during firing when the oils in the metallics and lusters burn off. Some people may be bothered by these fumes and the room should always be ventilated during firing.

General Instructions

Wipe the fired glaze surface down with glaze cleaner, acetone, or denatured alcohol (do not use rubbing alcohol). Make sure the piece is "air dry". Clean brush well with brush cleaner. Apply luster by brush, spraying or sponge. A medium application is recommended. If the coat is too heavy, the color disappears, leaving a powdery residue after firing. If applied too thin, the colors are not vivid.

Apply all Transparent lusters in a "C" stroke. Apply one thin coat as smooth as possible and allow to dry thoroughly before firing. Do not go back over the unfired metallic or luster as doing this will produce a dull area on the piece. Areas that have been brushed over twice will have a brown appearance. Allow the luster to dry before firing.

All products have a firing range of cone 022-015.

- Gold Thinner -** Can be used for Gold, Platinum, and Palladium. Use sparingly. Too much will reduce the quality of the metal producing a pink or purple residue.
- Luster Thinner -** Used to thin Lusters. Use sparingly. Brushes can be cleaned with thinner.
- Marbelizer -** Produces a network of lacy lines. Apply a solid coat of metallic to any glazed surface, glossy or satin. A slightly heavier than normal coat of Gold is advised. The size of the pattern is affected by the degree of dryness; the drier the metallic, the smaller the web pattern. Flow in a good coat of marbelizer, do not press down with the brush. Fire to cone 019.
- Antique Etch -** Brush onto 06-05 Greenware. Produces interesting craters and raised areas. The amount applied determines the depth of the craters. Bisque fire, then glaze and re-fire. Apply thin coat of luster.
- Overglaze Resist -** Brush on areas where luster is not desired. Disappears when fired.

Overglaze faults

Chalky – Caused by the application being too heavy or by firing when the luster is still wet.

Rubbing Off – Caused by underfiring or poor ventilation in the kiln.

White Spots – Caused by moisture, can be caused by humid conditions.

Black Spots – Caused by Dust on the ware.

Purple or Blue Spots – Caused by application being too thin or contamination of the luster/metal.

Dull Spots – Caused by overfiring or by heavy or double application.

Crystallization – Caused by too much heat or luster that is old.