

Common Enameling Problems/Fixes

It is important to pretest enamels prior to use. Printed colors charts do not always give an accurate color and there may be slight variations in the character of any enamel from batch to batch. Temperature for firing, and in the case of transparents the base color and the thickness of coat also impacts how enamel looks.

Enamel cracks or pings off

Possible causes:

- 1) Enamel applied too thickly, and/or unevenly,
- 2) Piece was not counter enameled,
- 3) Metal is dirty,
- 4) The firing temperature of the top coat is too low for the base coat.
- 5) The wrong type of enamel was used.

To fix: Be sure you are using the correct enamel for the material you are using. Counter enamel and fill in the holes before re-firing. Before enameling be sure to clean the metal and remove all dirt and finger oils. Re-fire closer to the correct temperature to get the base coat to fire.

Enamel has holes or appears to have bubbles caught in the glass

Possible causes:

- 1) Enamel was too wet when fired,
- 2) The enamel was too thickly applied,
- 3) Piece was a casting and impurities have come to the surface,
- 4) The firing temperature was too high.

To fix: Fill in the holes and re-fire. If the piece is a casting try another one. Avoid pickling before enameling, since liquid gets trapped in the casting and then comes to the surface when the enamel is fired.

The transparent enamel looks cloudy

Possible causes:

- 1) Enamel was not thoroughly washed,
- 2) Metal was not thoroughly cleaned,
- 3) Temperature of the kiln was too low,
- 4) Enamel layer is too thick.

To fix: If the problem was due to improper cleaning of the enamel or metal, try to disguise the problem using opaques to cover or use scrolling to divert the eye. If it is a low temperature problem, re-fire. Remember, apply thin layers when using transparents.

Enamel has black edges or burnt out holes

Possible causes:

- 1) Enamel too thin at the edges,
- 2) The enamel was over-fired. Reds fire out fairly easily and care must be used when firing.

To fix: Clean the edges by pickling and reapply more enamel.