

# Crackle or Liquid Form Water Based Enamels

Crackle Enamel sounds very exotic, and in some ways it is. It can come either in liquid form or as a powder. I would suggest getting the powder instead of the liquid since all you have to do is add water. You eliminate the cost of the water in the product and the cost of shipping the heavy liquid weight. If you live in a warm climate, it will tend to dry out and can be difficult to rehydrate a large amount.

This enamel contains a blend of glass, clay and electrolytes. It is formulated to be applied by spraying, dipping or pouring. If applied with a brush, brush marks will likely occur.

Crackle comes in a variety of colors. Due to the fine grind, the colors can be intermixed giving you an even greater palette to work with.

Different uses for crackle enamel.

- Apply without a crackle base and have a solid enamel surface
- Apply over copper screening and create a 3D piece
- Apply over a crackle base color and get fine lines in the crackle enamels. These lines can be increased by scratching lines into the dried, but not yet fired enamel.
- Apply crackle over 2015 and the cracks are “pooled” instead of fine lines. (thanks to Karen L Cohen for this tip)
- You can create a border with the crackle enamel.

Bases for the crackle enamel

- Use Thompson Crackle Base colors of white, black and clear.
- Use leaded enamels
- Apply direct on copper (no cracking will occur)

Making up the crackle enamels

- Place some powder into a container
- Make a depression in the center of the powder
- Add water slowly to fill the depression,
- Allow the water to soak in and then add a little more water, again stop and allow time for it to soak in.
- Soon you will notice a separation of the enamel from itself causing it to look like you had made a circle around the powder.
- Use a palette knife, move the dry powder in the outer ring into the center. Try not to disturb the inner ring.
- Small amounts of water may be necessary to make the entire top surface appear moist. Stir slowly and check the consistency.

- Bill Helwig's way to check consistency: Stick your dry finger into the enamel up to the second joint and instantly remove it from the container. Hold your finger straight down over the container. The enamel will drain off, and then you have drops forming. You are looking for 3 drops to fall into the container. Less than 3 drops the enamel is too thick, more than 3 it is too thin.

Crackle enamels can be enameled over with transparents to add a difference in the colors.

In a workshop with Bill Helwig we covered a piece of copper with white crackle enamel. We let it dry and then using a ruler scratched out a border, making it ( the crackle enamel) the frame. We then scratched out a picture in the center. Fired the piece and then applied a transparent over the piece. The scratched areas gave a dark area while the portions with the crackle enamel looked like transparent over white.

#### Some Miscellaneous tips

- Fire around 1450 degrees F.
- The crackle layer should not be too thick or else the crackle won't crack!
- Mixtures not used immediately should be stored in a closed container.
- Over time the enamel will fall out of solution and needs to be mixed.
- If sufficient time passes the crackle enamel will dry out. If that happens, add water and let the enamel sit for 24 hours and the enamel will rehydrate. You may need to keep adding water as the current water is absorbed. Mix and retest for consistency.
- You can alter the cracking by scratching thru the crackle enamel before firing
- You can close up the finer cracks if you fire longer or hotter.
- As a coat of enamel direct on copper, 533 white applied unevenly will fire and absorb the copper oxide such that you can have white and varying shades of celadon green.
- Put a coat direct on copper and scratch thru, fire and then cover with a transparent.
- Put a coat of regular unleaded enamel on copper, fire, add a coat of crackle and scratch thru and you will have lines or patches of a different color showing thru.
- Add ceramic pigments to the crackle enamels to achieve more colors.
- Mix together different crackle colors to increase your palette.