Materials and Equipment List for Zoom Workshop

Fred Ball Experimental Techniques Part 1: Liquid Enamels

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Since this workshop is all about experimenting there will be a lot of options for students when using equipment and materials they already have or want to buy. This resource list contains a brief description of items students may already have, should plan to have or consider purchasing. More detailed resource information will be emailed to registrants 2-3 weeks before the workshop. Feel free to contact me if there are questions.

Materials

Metal

20 and/or 22 gauge copper sheet – enough to cut at least 18 1"x 2" strips and 9 or more 2"x 2" pieces-
4" piece of copper tooling foil
(optional) one or more 3" – 4" copper shallow bowls

Metal Tools

half round #2 file, rawhide mallet, Sheers for cutting copper foil, (optional) tube wringer
Pickle for removing copper oxidation

Liquid Enamels

The following Liquid Enamels manufactured by Thompson Enamels in dry powder form:

4oz quantities of 533 liquid Form white and 969 Base Coat Clear (https://enamel-warehouse.com/product/4-oz-single-jar-powdered-liquid-form-enamel-all-colors-available/)

(optional) 303, 1070, LCE 2, LCE 3, 771, 772 and any other Thompson liquid enamels

(optional) Liquid white and liquid clear enamels from W. G. Ball (https://www.e-namels.com/ - ask about WG Ball kit for this workshop)

(optional) Ferro RM 60C and 9630D (https://clayartcenter.net- refer to their numbers RM454 and RM455),

Any other liquid enamels you might have on hand or can buy small amounts to test.

Other Enamels

Any light colored Thompson lead free transparents including fluxes, especially 2020
"Crackle" base and low expansion enamels from Thompson: 1997, 2008, 1020, 1006
Thompson opaque foundation white 1030
(https://thompsonenamel.com)

Any other leaded or unleaded transparents including fluxes that come from other manufacturers

Counter enamel of your choosing. Using a Liquid counter enamel (LCE from Thompson) will allow you to enamel back and front at the same time.

Enamel Supplements

(optional) ceramic pigments/oxides. If you intend to buy, a little goes a long way. Small quantities should last a lifetime. Note: These and other colorants for liquid enamel are available through ceramic suppliers.

Application Tools

Sifters, 2 " preferably, graded for 80, 100 and/or 150 mesh – mesh should be stainless steel
Tools for trailing splattering, dripping, painting liquid enamel on copper.
Toothbrushes, eye droppers, syringes, straws, squeeze bottles, and various size watercolor brushes are a good start for applications of liquid enamel
A mister to spray water and diluted Klyrfire.
Small glass or plastic containers to mix liquid enamel, to add water, or to clean brushes
Palette knife,
Mixing palette –window glass, or white ceramic tile, or a small piece of whiteboard
Spoons or spatulas for stirring liquid enamel
Magazine paper for sifting enamel powder

(optional) Resists - oils, liquid wax resist, crayons, lecithin granules, borax, etc. The resist must be able to be burned off in the kiln.
(optional) stencils- flexible plastic sheet , Cut with scissors

(optional) sprayer and spray booth
Critter sprayer for spraying large surfaces - https://www.amazon.com/Critter-Spray-Products-22032-Siphon/dp/B00006FRPJ?th=1
an airbrush for smaller applications and airbrush accessories
an air compressor that can reach 55 PSI.

If you don't have an airbrush I would wait to purchase one until after the details of using the airbrush are discussed. How to spray liquid enamel will be demonstrated in the workshop.
A spray booth can be as simple as a cardboard box lined with newspaper or contact paper that has a hole cut in the back for an exhaust fan.

General studio set up

Firing

In this workshop we will only be demonstration experimentation using a kiln. Many of Ball's projects use a torch so if you don't have a kiln and do have a torch firing set up, please feel free to do experiments using a torch. For kiln firing you will need standard firing and safety tools. A timer is always good when doing comparative measurements and tongs or large tweezers are handy to remove pieces from racks and trivets. A steel press plate is optional but always good to have.

Drying

You may choose to air dry your test pieces or dry them on top of your kiln.
(optional) heat gun and heat proof surface for drying enamel.

Safety

Nitrile pr latex gloves
Dust mask (preferably N95) or respirator
Kiln glasses, kiln gloves
Apron

Ventilation
If spraying liquid enamel, a ventilated spray booth is a necessity.
A mask or ventilator should be worn for all other application