

Firing Tips



SUCCESS WITH LUSTERS

What are Lustres?

Lusters are metal-based transparent overglazes available in rainbow colors. They are applied over gloss, satin and matte glazes as well as porcelain bisque.

Beautiful if applied over china paints, lustres can also be applied over other lustres. When fired they are iridescent.

Lusters can be used to save streaky or unattractive underglazes or to give a new or different look to a piece. The most popular and perhaps best known luster is Mother of Pearl which has vari-colored appearance after firing.

The firing range for lustres is 022 to 017 as recommended by the manufacturer.

How Do Lustres Work?

- metallic salts, colorings, a reducing agent (usually organic binder such as oil of lavender) and resin are mixed with oil medium
- lustres are applied to glazed surface with brush
- during firing - the reducing agent burns out causing localized reduction
- the oil medium and resin burn out and leave the metal
- a thin layer of pure metal is deposited on glaze

Concerns When Using Lustres

1. dust on ware before application causes uneven, splotchy look
 - area should be dust free
 - clean ware with alcohol before application and let dry
2. essence brush cleaner left on brush causes brush to pick up luster from ware, leaves brush strokes
 - let brushes air dry 2-3 hours after cleaning with essence
3. wet brushes used for lustres causes streaky look
 - let brushes air dry 2-3 hours after cleaning with essence
4. using same brush for different colors of luster causes muddy appearance



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- maintain and use separate brushes for each color
5. too much luster causes
 - powdery appearance
 - open/dull spaces between glossy luster areas
 - blistering or crazing
 - brush marks on luster
 - apply 2 even, thin coatings
 6. too little luster causes uneven appearance
 - apply 2 even coatings
 7. piece fired before luster dried causes color to disappear/vaporize, white splotches
 - let the luster piece dry overnight before firing
 8. overfiring of ware causes weak colors
 - use witness cones to verify heatwork on the shelf
 9. underfiring of ware causes lusters to powder-off
 - use witness cones to verify heatwork on the shelf
 10. insufficient ventilation
 - a. causes migration of lusters/contamination of colors
 - b. causes a frosty appearance after firing- results from reaction of oils and fumes

insure adequate ventilation of kiln

 - introduce air into kiln
 - circulate air throughout kiln
 - move fumes from kiln so cannot

deposit on other pieces

- Use the Orton KilnVent to circulate and supply air to the kiln for the best results.

Safety Issues

Fumes from lusters include vapors from oils and metallics. These should not be inhaled.

- Take caution during application to work in well ventilated area - crack windows or doors or use an exhaust system or fan.
- Take caution during firing to ventilate kiln and remove fumes to outdoors. Use the Orton KilnVent to remove fumes from the kiln and the kiln room and exhaust them outside.

Want to learn more?

Read more about firing lusters, heatwork and ventilation in the Orton Firing Line and Technical Tips publications. Published 8 times a year, each issue is packed full of articles to help you learn more about firing. Members of the Orton Firing Institute receive these publications at no charge. Single copies are available to non-members at a per issue rate.

For information on Orton products, see your Orton dealer or distributor.

For information on the Firing Institute or publications, contact

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