

15 low-fire glaze recipes from the pros

| Second Edition |



recipe cards for low-fire
pottery glazes

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Looking for a few great low-fire glaze recipes? Here they are—15 great recipes from 11 professional ceramic artists and available on convenient recipe cards you can print out and take into your studio. No matter what your interest—color, texture, surface effect, majolica or slips—you're sure to discover something you can use on your work from these successful glazes the pros are using.

If you've been looking for a new low-fire glaze recipe to use as a base glaze for functional work, or maybe you're in need of some highly unusual surface treatments, then you'll find the assortment here covers glossy to matt and crusty to smooth. And by the time you add in all the possible variations through your experiments, your low-fire glaze palette should be teaming with possibilities.

And remember, results vary with clay bodies, materials, and firing schedules, so be sure to test all your glazes in small batches using your own materials and equipment. Now get out there and mix up some new low-fire pottery glazes!

15 LOW-FIRE GLAZE RECIPES FROM THE PROS

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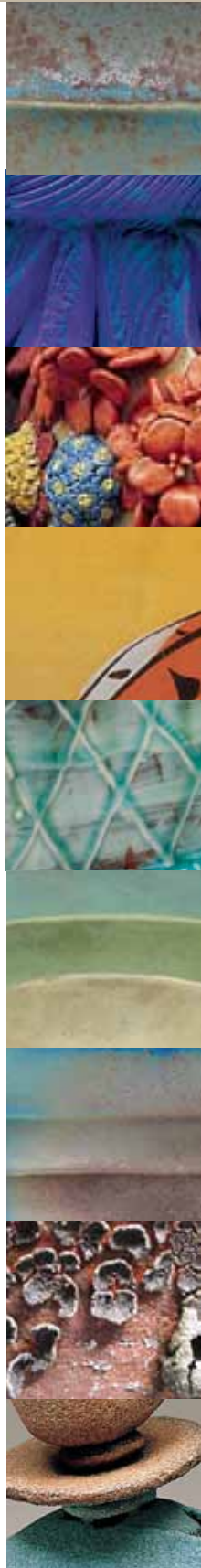
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LOW-FIRE



Linda Arbuckle's Majolica Glaze

Cone 04

Ferro Frit 3124	66 %
Kona F-4 Feldspar	17
Nepheline Syenite	6
EPK Kaolin	11
	<u>100 %</u>

Add: Tin Oxide	5 %
Zircopax	10 %
Bentonite	2 %

This recipe is for the stiff base glaze.
For color, apply stains over.
(Note: First appeared in 1995.)

LOW-FIRE



LOW-FIRE

Matt Glaze

Cone 06

Gerstley Borate	38 %
Lithium Carbonate	10
Nepheline Syenite	5
Grolleg Kaolin	5
Silica	42
	<u>100 %</u>

Add 15% glaze stain for bright pinks and reds; for other bright colors, add 10% glaze stain. Greens require stains with low amounts of chrome, or bubbling may occur. To get opaque pastels, add 0.5%–2% glaze stain and 8–9.5% Zircopax to total 10%.



Majolica Overglaze

Cone 06–04

Ferro Frit 3124	50 %
Wollastonite	10
Glaze Stain	40
	<u>100 %</u>

Can be used over a similarly colored Matt Glaze (left) to intensify the color while retaining the matt surface.

From Sandra Luehrsen,
Ceramics Monthly, June 2002.

LOW-FIRE

LOW-FIRE

Love Child (Mark Burleson)

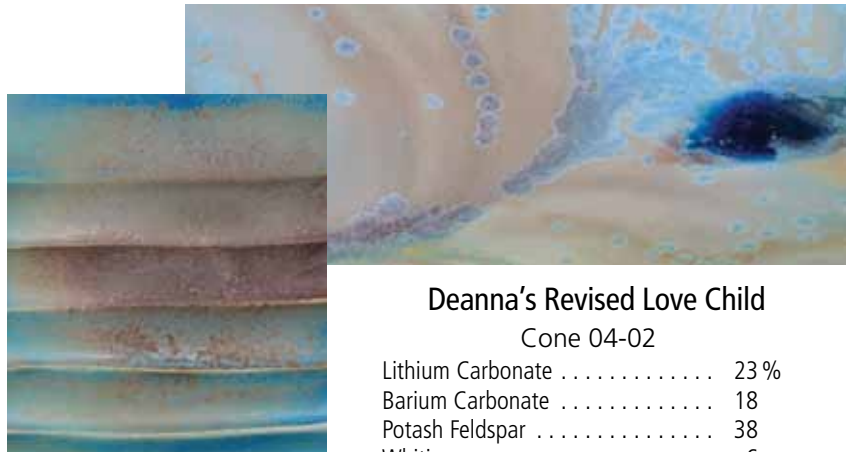
Cone 04-02

Lithium Carbonate	25.9%
Barium Carbonate	16.1
Potash Feldspar*	40.2
Whiting	4.5
EPK Kaolin	8.9
Silica	4.5
	<u>100.0%</u>

For Blue, add:

Cobalt Carbonate	1.0%
Copper Carbonate	1.0%
Rutile	2.0%

*The original text listed "Potash F4." I've tried both potash and soda feldspars with similar results. Figure 1 is shown with potash feldspar.



Deanna's Revised Love Child

Cone 04-02

Lithium Carbonate	23%
Barium Carbonate	18
Potash Feldspar	38
Whiting	6
EPK Kaolin	9
Silica	6
	<u>100%</u>

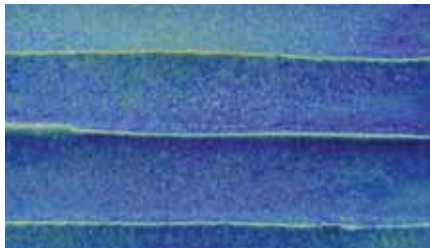
Add: Bentonite 1%

For Blue, add:

Copper Carbonate	2%
Rutile	1-2%

For Lime Green, add:

Chartreuse Stain	6%
Rutile	1-2%



LOW-FIRE

LOW-FIRE

Love Child Strontium Revision

Cone 04-02

Lithium Carbonate	27.0%
Strontium Carbonate	12.5
Potash	41.9
Whiting	4.6
EPK Kaolin	9.3
Silica	4.7
	<u>100.0%</u>

For Turquoise, add:

Copper Carbonate	1-2.0%
Rutile	1-2.0%



Love Child Spodumene/ Strontium Revision

Cone 04-02

Spodumene	26.2%
Strontium Carbonate	12.6
Potash	42.3
Whiting	4.7
EPK Kaolin	9.4
Silica	4.8
	<u>100.0%</u>

For Dry Turquoise, add:

Copper Carbonate	2.0%
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This glaze is very dry similar to a slip or an engobe.



LOW-FIRE

LOW-FIRE



Hirsh Satin Matt Base

Cone 04–02

Gerstley Borate	32 %
Lithium Carbonate	9
Whiting	17
Nepheline Syenite	4
EPK Kaolin	4
Silica	35
	<hr/> 100 %

Add: Bentonite 2 %

Green:

Chrome Oxide 1 %

Yellow:

Yellow Stain 8 %

Light Blue:

Copper Carbonate 1.5 %

From Joe Pintz, *Ceramics Monthly*,
September 2009.



LOW-FIRE

LOW-FIRE



Kari's Best Transparent

Cone 04–02

Gerstley Borate	11 %
Talc	30
Pemco Frit 626	19
Ferro Frit 3124	11
Spodumene	14
EPK Kaolin	15
	<hr/> 100 %

Add: Wollastonite 5 %
Veegum T. 1 %
CMC Gum 0.4 %

Celadon

Copper Carbonate 0.3 %

Blue

Cobalt Carbonate 1.5 %

Copper Carbonate 2.0 %

Grape

Manganese Dioxide 7.0 %

Copper Carbonate 0.5 %

Emerald Green

Copper Carbonate 6.0 %

From Kari Radasch,
Glazes and Glazing: Finishing Techniques.

LOW-FIRE

LOW-FIRE

HK Dry Lithium Base 1

Cone 010–04

Lithium Carbonate	28 %
Bentonite	3
Georgia Kaolin	15
Silica	54
	<u>100 %</u>

Salmon Pink:

Manganese Dioxide	5 %
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Burnt Salmon Red:

Black Copper Oxide	3.5 %
Manganese Dioxide	3 %

Granite Gray:

Nickel Oxide	5 %
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Oyster Shell White:

Black Iron Oxide	3 %
Vanadium Stain	1 %

Limestone Green:

Black Copper Oxide	3 %
Rutile	4.5 %

Woody Brown:

Black Copper Oxide	4 %
Black Iron Oxide	5 %
Chrome Oxide	0.5 %
Manganese Dioxide	3 %
Red Iron Oxide	4 %

Bronze:

Manganese Dioxide	2 %
Copper Oxide	3 %
Chrome Oxide	4 %

These dry lithium glazes are applied to earthenware and fired up to cone 04. To retain application texture and dry surface quality, fire only to cone 010. Multiple firings may be necessary for color intensity and depth. Shivering may occur if the glaze firing is prolonged. When firing a glaze kiln with bisque ware, the recommended firing schedule is to turn up the kiln (electric) one third every two hours, so that the kiln is on high in four hours.



LOW-FIRE

LOW-FIRE

MNO Lichen

Cone 06

Borax	25 %
Lithium Carbonate	9
Magnesium Carbonate	39
Ferro Frit 3134	3
Nepheline Syenite	24
	<u>100 %</u>

Add: Copper Carbonate	5 %
Bentonite	3 %

From Darren Emenau,
Surface Decoration: Finishing Techniques.



This recipe was inspired by low-fire recipes by Lana Wilson. It can be brushed on in various thicknesses. Some of the glaze may flake off during firings. After firing, scrape or sand blast the surface to remove any loose glaze. You can rub beeswax into some areas and then torch it to remove most of the wax. Forms often look best if fired multiple times. A nepheline syenite wash will prevent flaking during firings. If your clay contains a high percentage of iron oxide and salt crystals, these act as strong fluxes and will prevent some flaking as well.

LOW-FIRE

LOW-FIRE

Black Vitreous Slip

Cone 04

Ferro Frit 3124.	40 %
Nepheline Syenite	20
OM4 Ball Clay	30
Silica	10 %
	<u>100 %</u>

Add: Copper Oxide	3 %
Cobalt Oxide	1 %
Chrome Oxide	5 %
Red Iron Oxide	4 %

This slip recipe is for use with wet to leather-hard clay. A vitreous slip or engobe will flux more than a basic slip recipe, and is between an engobe or slip and a glaze in composition.



Deb's Clear Base

Cone 04

Ferro Frit 3195.	45%
Ferro Frit 3134.	30
EPK Kaolin.	25
	<u>100 %</u>

Butter Yellow:

Add: Mason Stain 6464	
Zirconium Yellow.	2 %

Moss (food safe):

Add: Copper Carbonate	2.5 %
Burnt Umber.	4 %

This glaze is transparent and shiny. Apply thin in order to ensure the fired glaze will be a transparent clear. It is very responsive to colorants. Use a thicker application with colorants to achieve a rich translucent glaze.



From Joan Bruneau, *Pottery Making Illustrated*, Nov/Dec 2010.



LOW-FIRE

LOW-FIRE

Icy Blue Glaze

Cone 04

Gerstley Borate.	25%
Lithium Carbonate	4
Ferro Frit 3124	29
Nepheline Syenite.	19
EPK Kaolin	5
Calcined EPK Kaolin	5
Silica	13
	<u>100 %</u>

Add: Copper Carbonate	0.4 %
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This glaze works best when it is not too thick. If the glaze application is thicker than normal (more than the thickness of a dime) it runs excessively. Recipe adapted by Kari Radasch from a Woody Hughes recipe.



LOW-FIRE

LOW-FIRE

White Slip

Cone 06–10

Feldspar	25%
Ball Clay	25
Kaolin	25
Silica	25
	<u>100%</u>

This slip is easy to mix, can be applied on greenware and bisque, and works from cone 06 to cone 10. The black stain I apply to bisque cleanly wipes off this slip.

Gerstley Borate Base Glaze

Cone 03

Gerstley Borate	55%
EPK Kaolin	30
Silica	15
	<u>100%</u>

Blue:

Cobalt Oxide 2%

Rich Green:

Copper Carbonate 6–8%

Rich Yellow:

Rutile 6–8%

This glaze is a slight variant of a Wayne Higby 1-2-3 raku glaze. I mix up 5-gallon buckets of clear, Rich Green and Rich Yellow. I have on hand ½ gallon of Blue. The rest of the colors I use come from mixing these glazes together: Yellow Green: three parts Rich Yellow to one part Rich Green.

From Gail Kendall,

Electric Firing: Creative Techniques.



LOW-FIRE



LOW-FIRE



Lana's Purple Aqua Glaze

Cone 06

Barium Carbonate	48%
Nepheline Syenite	48
Pemco Frit 626 or Ferro Frit 3289	4
	<u>100%</u>

Bentonite 2%

Copper Carbonate 4–8%

This recipe should not be used on a food container, even on the outside. Spray thin for purple and thick for aqua. For more aqua, use smaller amounts of copper carbonate.

From Lana Wilson,

Ceramics Monthly, June 1995.



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