

[illegible]

Raw Material	A	B	C	D	E	F	G	H	I	J	L	M	N	O
	Dewar Slip #3 ³	Hamlyn Blue Slip ³	Mansfield Slip #1B ³	Basic Slip #2 ³	Mansfield Slip #1A ³	Hoag Revisited ¹	GN Kaolin Slip #1 ²	Dewar Slip #2 ³	Flashing #2 ¹	Bauer Slip ¹	Tony's Blaze ¹	Flashing #3 ¹	GN Kaolin Slip #2 ²	#6 Tile Slip ¹
Nepheline Syenite	50	62		50		23		33.3	21.5		41	35.4	10	15
EPK	50	38		50		27.6	100	33.3	26.9	41.9	12	39.8	80	
OM4 Ball Clay			50	50	50	18.4		33.3	32.3	41.9				
Alumina Hydrate									2.2		41	4.4		
Silica						23					2		10	
Bentonite						2.4	5				5	2	5	
#6 Tile Kaolin						5.5								85
TiO2												2.7		
Soda Ash									3.2			17.7		
Zinc Oxide									10.8					
Zircopax									3.2					
Rutile		1								10.5				
Cobalt Oxide		1.5												
NC4 Soda Feldspar			50		50									
Kona F-4 Soda Feldspar														
Borax										5.7				
1) The Complete Guide to High Fire Glazes - John Britt														
2) Soda, Clay, and Fire - Gail Nichols														
3) Salt Glazing - Phil Rogers														

Ruggles/Rankin Green-Blue Slip (Cone 10, reduction)

Borax	4.27%
Nepheline Syenite	25.64
Bentonite	1.71
Edgar Plastic Kaolin	17.10
Kentucky Ball Clay (OM 4)	25.64
Flint	25.64

100.00%

Add: Chrome Oxide	3.42%
Cobalt Carbonate	2.56%

Ruggles and Rankin 6-Tile Slip (Cone 10, reduction)

Nepheline Syenite	9.90%
6-Tile Clay	69.31
Bentonite	0.99
Grolleg Kaolin	14.85
Flint	4.95

Oatbran Wadding

Edgar Plastic Kaolin	7 scoops
Fireclay	7
Oatbran	7
	21 scoops

Mix the clays with enough water to give it a yogurtlike consistency, then add oatbran (from your local feed store) until the wadding can be easily rolled into balls. This wadding is inexpensive, nontoxic, grinds off easily and doesn't leave nasty white marks on the pots.

Leather Slip

#6 Tile Clay	85.00%
Nepheline Syenite	15.00
TOTAL:	100.00%

DSE Slip

Grolleg Kaolin	38.30%
EPK Kaolin	38.30
Nepheline Syenite	23.00
Yellow Iron Oxide	.40
TOTAL:	100.00%

Wood Slip

EPK	17.81%
Grolleg Kaolin	23.74
Nepheline Syenite	45.56
Sifted Fireclay	11.88
Titanium Dioxide	1.01
TOTAL:	100.00%

Yellow Slip

Nepheline Syenite	27.26%
Calcined Kaolin	54.53
Flint	4.54
Superpax	4.54
Titanium Dioxide	9.13
TOTAL:	100.00%

Ruggles and Rankin #6 Slip (Cone 10, reduction)

Custer Feldspar	60%
Edgar Plastic Kaolin	40
	100%
Add: Cobalt Oxide	5%
Manganese Dioxide	10%
Red Iron Oxide	15%

Salt Slip

(Cone 9-10)

Borax	11.49 %
Nepheline Syenite	5.75
Bentonite	4.60
Edgar Plastic Kaolin	4.60
Kentucky Ball Clay (OM 4) ..	4.60
Flint	68.96
	100.00 %

Salt Slip

KARNES

Put on dry clay (thinly)

Ball clay	450
Fireclay	225
Feldspar	450
Flint	375

plus manganese	15%
plus cobalt	3%
plus nickle	5%
plus rutile	10%

Johnston Black Decoration

Custer Spar	75.00%
Talc	10.00
EPK	10.00
Black Mason Stain	5.00
TOTAL	100.00%

*BLACK STAIN

Chrome oxide	54
Red iron oxide	26
Manganese dioxide	44
Cobalt oxide	5

Black Slip

Alberta Slip	78.26%
Ball Clay	19.57
Bentonite	2.17
	100.00%

Add: Chrome Oxide	7.61 %
Cobalt Carbonate	1.63 %
Red Iron Oxide	1.63 %

REITZ SLIP.

21	EPK
16	OM-4
20	N.S.
32	SILICA
5	BORAX
3	BENT.

ORANGE SLIP cone 9-10

Kaolin	33
Nepheline Syenite	33
Silica	33
Rutile	15

SALT SLIP cone 9-11

Cornwall Stone	1 (by
Kaolin	1
Flint	1
Manganese	5%
Copper Carbonate	3-5%

SALT #2 Red Col.

EPK 250-300

Borax 250

SILICA 250

NS 250

TALC 100

BORAX 75

COBALT TAN KENW-
160 RUTILE TO
1000 R

Salt

160 Rutile
8 Co. Ox. TO 1000

BLACK

100 BLACK / TAN OX

100 MANG

50 Co. OX

OPAL

150 TITANIUM DIOX.

Salting Mixtures

Salting mixtures should be adjusted to suit particular bodies. Here are two basic recipes:

Mixture for stoneware bodies: 1200-1300°C

Rock salt	50% - Typical orange-peel surface
Sawdust	50% (by volume)

+ Borax 15% - Smoother glaze surface

Up to 5% sugar or starch can also be added to the mixture.

Mixture for earthenware bodies: 1100-1200°C

(by wt)

Rock salt	30%
Soda ash	50%
Borax	15%
Baking Flour	5%

Apply previous recipe to leather-hard ware. For black trailing, add 2 lbs. Mason stain 6609 to 24 oz. liquid slip.

White Slip for Salt Glazing (Cone 9-10)

Custer Feldspar	21.3 %
Avery Kaolin	60.0
Bentonite	2.3
Flint	16.4
	100.0 %

Apply to bisqueware.

Mark Hewitt's Dark Slip

cone 10 reduction/wood fire

Potash Feldspar	25.0%
Local Red Clay	75.0

Cobalt Salt Slip

(Cone 9-10)

Custer Feldspar	20 %
Cedar Heights Goldart	40
EPK (Edgar Plastic Kaolin)	30
Silica (Flint)	10
	100 %
Add: Cobalt Carbonate	2 %

Apply at leather-hard stage.

Ohata Slip Glaze

(Cone 10)

Bone Ash	9.0 %
Red Iron Oxide	7.2
Soda Ash	1.0
Talc	4.5
Whiting	8.3
Custer Feldspar	25.0
Cedar Heights Redart	32.0
Silica (Flint)	13.0
	100.0 %

ness of the slip and firing temperature.

Avery Salt Slip

(Cone 10, reduction)

Nepheline Syenite	35 %
Avery Kaolin	65
	100 %

Add 2-3 handfuls of soda ash per 5000-gram batch.

Wood/Salt Flashing Wash

(Cone 9-12)

Nepheline Syenite	20.0 %
6 Tile Clay	80.0
	100.0 %
Add: Bentonite	2.5 %

Mustard Slip

Custer Feldspar	30 %
6 Tile Clay	30
Avery Kaolin	10
Grolleg Kaolin	30
	100 %
Add: Titanium Dioxide	15 %

Jim's Crackle and Flash Slip

(Cone 6-10)

Borax	5 parts
Soda Ash	5
Custer Feldspar	20
Ball Clay	10
Calcined Kaolin	15
Edgar Plastic Kaolin	10
Helmer Kaolin	10
Flint	10
Zircopax	5
	90 parts

JOHNSTON WHITE SLIP FOR SALT BISQUE

14.6 lbs.	Avery kaolin
5.2 lbs.	Custer spar
4 lbs.	Silica
250	Bentonite

Lining Glaze

(for interiors)

Nepheline Syenite	70 %
Ball clay R	25 %
Silica	5 %

Bauer Slip

(Cone 11)

Borax	5.7 %
EPK (Edgar Plastic Kaolin)	41.9
Kentucky Ball Clay (OM 4)	41.9
Zircopax	10.5
	100.0 %

Blair's Red Slip

(Cone 11)

Nepheline Syenite	15 %
Grolleg Kaolin	20
Helmar Kaolin	65
	100 %

Yellow-Gold Slip

(Cone 10-11)

Soda Ash	0.98 %
Nepheline Syenite	59.81
EPK (Edgar Plastic Kaolin)	39.21
	100.00 %
Add: Titanium Dioxide	4.91 %

Coleman Trailing Glaze

(Cone 10-11)

Talc	10 %
Custer Feldspar	70
Kentucky Ball Clay (OM 4)	20
	100 %

HEPBURN SLIP BASE

GROLLEG	30
XX SAGGER	30
#6	10
F4	15
SILICA	15
BENT	2

BLACK ADD:

R10	5
MANG DIOX	3
COBALT CARB	2

BLUE ADD:

COBALT CARB	5
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GREEN ADD:

RUTILE	6
COBALT CARB	3

GAIL NICHOLS BASE

EPK	80 PARTS
CUSTER	10
SILICA	10
BENT	10

RED/BROWN:

R10	2 %
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GOLD

RUTILE	3 %
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GOLD/GREEN:

RUTILE 3 %	
COBALT CARB .3 %	

BLUE:

COBALT CARB .3	
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BROWN BLACK:

MANGANESE DIOX. 5 %	
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HIGH ALUMINA SLIP

EPK	100 PARTS
BENT	10 PARTS

AMY WOODS BLACK SLIP

RED ART	50 PARTS
BALL	25
MANG DIOX	15
BLACK STAIN	12
BLACK IRON OX.	5

SOPH. FOUNDATION CERAMICS • (NO CLAS

VC SALT SLIP • WHITE BASE • WET TO LEATHER APPLICATION.
C/4 TO 4/2

GROLLEG KAOLIN - 40	} WHITE BASE
TILE #6 KAOLIN - 15	
XX SAGGER (BALL) - 15	
NEPHELINE SYENITE - 15	
FLINT - 15	
FOR COLORED SLIPS.....	100

- 1) STRONG BLUE, add 2% COBALT CARB.
- 2) GREEN, add 2% COBALT CARB. + 5% RUTILE
- 3) YELLOWISH TAN, add 6% RUTILE
- 4) MOTHER OF PEARL, add 10% TITANIUM DIOXIDE
- 5) BLACK, add } COBALT OXIDE - 1%
IRON OXIDE - 4%
(WILL NOT TURN BLUE) } CHROME OXIDE - 2%
MANGANESE DIOXIDE - 3%
- 6) RUST/GOLD - 6% RUTILE + 4% RED IRON

RED/RUST SALT (YWOOD) DRY FLASHING SLIP.
C/4-12 REDUCTION. THESE SLIPS SHOULD BE
APPLIED ON THE THIN SIDE. THEY DO NOT TAKE
A STRONG ORANGE PEEL, BUT THEY ARE VERY
RICH ORANGE/RED, TOASTY FLASHING COLORS
AND A GOOD CONTRAST TO THE GREY/BROWN
STONEWARE BODY COLOR. (USE ON WET TO
LEATHER HARD)

SALT FLASH SLIP #1.

AVERY KAOLIN - 85	} RED/ORANGE TOAST
NEPH. SYENITE - 15	
	100

SALT FLASH SLIP (2.)

EPK - 85	ORANGE/TOAST
NEPH. SYENITE - 15	
	100

SALT FLASH SLIP (3.)

AVERY KAOLIN - 40	GOLD/TAN TOAST
XX SAGGER - 20	
EPK - 20	
NEPH. SYENITE - 20	

SALT FLASH SLIP (4.)

AVERY KAOLIN - 50	RED/TAN ORANGE TOAST.
E.P.K. - 20	
ALUMINA HYDRATE - 15	
NEPH. SYENITE - 15	

SALT ENGOBE BASE

NEPH. SYENITE	300
WHITING	200
EPK	400
BALL CLAY	600
FLINT	500

(1) YELLOW (MATT)

ULTROX	15%
RUTILE	-10%
N-475 STAIN	12%

(2) LIGHT BLUE

ULTROX	15%
COBALT CARB.	1/2%

(3) LIGHT GREEN

ULTROX	15%
CHROME OXIDE	1%

(4) DARK GREEN

ULTROX	15%
COBALT CARB.	1/2%
CHROME OXIDE	1%

(5) BLUE GREEN

RUTILE	15%
COBALT CARB.	1/2%

CASEBEER FLASHING SLIP cone 9-11

Flint.....	15
Grolleg.....	35
Avery Slip.....	35
Kona F-4 Feldspar.....	15

Titanium Yellow Slip

Nepheline Syenite	31.58
Tenn Ball Clay #10	63.16
Fistula	5.26
Super Pox	5.26
Titanium Diox	10.53

RUTILE SLIP: Yellow

Custer Feldspar	10.5 g
Talc	10.5 g
Ball clay	21.0 g
Kaolin	32.6 g
Silica	26.3 g
Rutile	15.0 g

JOHNSTON WHITE SLIP FOR DAMP

25%	: EPK
25%	Ball clay
25%	Custer spar
25%	Silica

TRAILING BLACK SLIP

2 Tbsp.	Mason black #6609
24 oz.	Liquid slip

ORANGE SLIP

Ball clay (1.5% iron)	50
Grolleg china clay	50

WHITE SLIP

SMD ball clay	50
China clay	50

BLACK SLIP

AT ball clay	33
Porcelain clay powder	33
Soda feldspar	33
add	
*Black stain	15%

Orange Crackle Slip

(Cone 11)

Kona F-4 Feldspar	3 lbs.
Avery Kaolin	7
Grolleg Kaolin	7
Flint (325 mesh)	3
	20 lbs.

MacKenzie's Amber Glaze

(Cone 11)

Mixed Hardwood Ash (window screen mesh)	21.93 %
Whiting	16.67
Custer Feldspar	41.23
Tennessee Ball Clay	3.50
Flint (325 mesh)	16.67
	100.00 %

Add: Red Iron Oxide 8.33 %

SLIP

HELMER	510
CUSTER	190
FLINT	200
ZIRCOPAX	50
BORAX	25
SODIUM CARB.	25
C.M.C.	25

Willie's 6 Tile Slip	9.80 %
Nepheline Syenite	68.63
6 Tile Clay	1.96
Bentonite	14.71
Grolleg Kaolin	4.90
Flint	

White Slip (Cone 9-10)	25 %
Custer Feldspar	25
Ball Clay	25
Edgar Plastic Kaolin	25
Flint	100 %

White Slip	8 %
Wood Ash	8
Potassium Feldspar	84
Kaolin	100 %

SLIPS FOR WOOD FIRING

Navy Blue Terra Sigillata

(Cone 05-14)

Soda Ash	2 %
Kentucky Ball Clay (OM 4)	80
Water	18
	100 %
Add: Cobalt Carbonate	1 %
Manganese Dioxide	1 %
Red Iron Oxide	1 %

Mix the ball clay, water and soda ash, and let settle overnight. Siphon off the middle layer (the terra sigillata), then blunge in the colorants. Due to the small particle size, terra sigillatas are very susceptible to atmospheric flashing. This terra sigillata is mostly black, turning blue where it is directly hit by flame or ash. Bright blue is often not a color associated with anagama firing; however, this recipe can definitely be used to good effect.

Flashing Wash

(Cone 6-14)

Soda Ash	30 %
Earthenware, Ball Clay or Kaolin	70
	100 %
Mix and apply quite thin. Spray, dip or brush onto bone-dry ware or bisque. Try it with Cedar Heights Redart, EPK (Edgar Plastic Kaolin), Helmer kaolin, Yellow Banks 101 dark, Newman Red or Ravenscrag slip clay.	

Helmer Slip

(Cone 8-14)

Nepheline Syenite	20 %
Helmer Kaolin	70
XX Saggar	10
	100 %

Helmer kaolin has a tendency to flash orange or red in wood firings. Apply with any technique. It is rather dry at lower temperatures, but can develop beautiful matt surfaces. Above

Bauer's Orange Slip

(Cone 9-11)

Borax	5.7 %
Zircopax	10.5
Edgar Plastic Kaolin	41.9
Kentucky Ball Clay (OM 4)	41.9
	100.0 %

Rhodes's White Crackle Slip

(Cone 9-11)

Borax	5 %
Zircopax	5
Custer Feldspar	20
Ball Clay	15
Calcined Kaolin	20
Edgar Plastic Kaolin	15
Flint	20
	100 %

Liner Glaze

(Cone 4-14)

Colemanite	50 %
Plastic Vitrox	50
	100 %
Add: Zircopax	10 %

Cone 10, it can be glassy and lustrous. Natural ash deposits greatly enhance this slip.

Yellow Slip

(Cone 05-14)

Gerstley Borate	13 %
Nepheline Syenite	12
EPK (Edgar Plastic Kaolin)	25
Kentucky Ball Clay (OM 4)	25
Silica (Flint)	25
	100 %

When applied thick on an iron-bearing clay, this slip turns a bright mustard yellow with white and purple flashing. On lighter clay bodies, it flashes orange and pink with touches of yellow. Since it begins to mature at temperatures as low as Cone 05, it looks beautiful in any kiln zone. This slip also is enhanced by natural ash deposits.

Iron Slip

(Cone 05-14)

Red Iron Oxide	25 %
Cedar Heights Redart	75
	100 %

This slip is from David Leach for brushed decoration on porcelain. It can turn beautiful shades of purple and brown in an anagama. If applied too thick, it can have the appearance of burnt plastic. Natural ash tends to turn iron-saturated surfaces green or yellow.

Crackle Slip

(Cone 6-14)

Borax	5 %
Custer Feldspar	21
Calcined Kaolin	16
EPK (Edgar Plastic Kaolin)	21
Kentucky Ball Clay (OM 4)	16
Silica (Flint)	21
	100 %

Add: Zircopax 5 %

Apply to bone-dry ware or bisqueware to achieve the desired effect. Thickness is critical; too thin yields no crackle and too thick falls off the piece. The kaolin and opacifier encourage this slip to flash orange. Natural ash deposits flow between the crackle texture, yielding dramatic surfaces.

Johnston Yellow slip for Bisque/Salt

C 10

Color:	Surface?		
1.48	Nepheline Syenite	28.56	2856
2.86	Calcined Epk	57.12	5712
1.24	Zircopax	4.76	476
.48	Titanium dioxide	9.56	956
			10000

J'S SALT SLIP

Avery kaolin	25
Grolleg	10
OM4 ball clay	25
Soda spar	15
Whiting	5
Flint	15
Borax	5

BLUE SLIP

Westerwald clay	
Cobalt oxide	1.5%

SHINO GLAZE

Nepheline syenite	80
Ball clay	20

WHITE SLIP

China clay	50
Quartz	20
Westerwald clay	30

ORANGE SLIP

China clay	50
Ball clay	50

Soda Slip From Randy Johnston

Color:Orange/ivory	Surface:matte	
2.5	Grolleg Kaolin	50.00
1.5	Calcined EPK	20.00
1.5	Nepheline Syenite	30.00

ADD THESE	Yellow Iron Oxide	0.50%
COLORANTS:	Kentucky White	2.00%
	Zircopax	%

River Falls Titanium Yellow Soda Slip

Color:Yellow/white in Oxidation	Surface
	B
Ingredient	Percent
Nepheline syenite	31.59
Om-4 Ball clay	63.15
Flint	5.26

HELMAR SLIP

Helmar clay	25
Custer Spar	12.5
Flint	26
Pyrotrol	26
Ball clay	3.5
Fireclay	3.5

TS:	
Superpax	5.26%
Titanium	10.53%
	%

RECIPES

(Cone 10 Reduction: Preferably-Soda Fired)

White Clay		Blue Clay	
Ball Clay	50%	Light Blue Stain	1%
China Clay	50	Dry Porcelain	99

F4 feldspar	10.8
Spodumene	15.2
Soda ash	4
Neph Sy	45
OM4	15
EPK	35

I am not sure of the origin of this recipe, I g
professors who went to Alfred.
Thanks again

Evan Vieser-

HELMAR SLIP

Nepheline Syenite	15 %
Grolleg Kaolin	20
Helmar Kaolin	65
	100 %
Add: Veegum Cer.	2 %
Bentonite	1 %

TILE 6 SLIP

Nepheline Syenite	20 %
Calcined EPK Kaolin	20
Tile 6 Kaolin	50
325-mesh Silica	10
	100 %
Add: Veegum Cer.	1 %
Bentonite	2 %

70/30 T6 SLIP

Nepheline Syenite	30 %
Tile 6 Kaolin	70
	100 %
Add: Veegum Cer.	2 %