

# White Glazes – Cone 5

Colemanite White Glaze (Cone 5)		Gray-White Glaze (Cone 5)		Creamy White Glaze (Cone 5)		Milk White Glaze (Cone 5)		Semimatt White Glaze (Cone 5)	
Colemanite	31%	Dolomite	15.4%	Dolomite	19.2%	Dolomite	17.2%	Barium Carbonate	16.6%
Dolomite	14	Frit 3124 (Ferro)	23.1	Frit P626 (Pemco)	30.8	Custer Feldspar	20.7	Dolomite	16.6
Kaolin	19	Petalite	61.5	Petalite	19.2	Kaolin	41.4	Talc	16.7
Flint	36	Add: Zinc Oxide	100.0%	Kaolin	30.8	Flint	20.7	Spodumene	16.7
	100%		15.4%	Add: Tin Oxide	100.0%		100.0%	Kaolin	16.7
					3.8%		6.9%	Flint	16.7
								Add: Zinc Oxide	100.0%
								Rutile	16.7%

THE FOLLOWING white and off-white glazes were developed by Hobart Cowles (1923-1980) during his 29-year teaching career at the Rochester Institute of Technology. With the exception of the Cone 06 Crazed Majolica-type glaze, all were tested at Cone 5 on a buff clay body. Results will vary on different bodies, in different kilns, with different firing cycles. None were tested with additional colorants. (Even those containing rutile remain colorless.) The full range, therefore, could be tested with and without colorants at Cones 4, 5 and 6 to determine compatibility with studio clays and firing processes.

### Stony Gray-White Glaze (Cone 5)

Colemanite	21.3%
Custer Feldspar	14.5
Frit 3134 (Ferro)	14.9
Spodumene	11.0
Kaolin	17.0
Flint	21.3
	100.0%
Add: Tin Oxide	5.1%

### Stony White Glaze (Cone 5)

Barium Carbonate	14.2%
Dolomite	14.3
Talc	14.3
Cornwall Stone	14.3
Spodumene	14.3
Kaolin	14.3
Flint	14.3
	100.0%

### Semitransparent White Glaze 1 (Cone 5)

Barium Carbonate	19.1%
Colemanite	14.1
Frit P626 (Pemco)	28.7
Petalite	19.1
Kaolin	9.5
Flint	9.5
	100.0%
Add: Opax	5.0%

### Semitransparent White Glaze 2 (Cone 5)

Barium Carbonate	25.0%
Colemanite	12.5
Petalite	37.5
Kaolin	12.5
Flint	12.5
	100.0%
Add: Tin Oxide	3.0%

### Semitransparent White Glaze 3 (Cone 5)

Barium Carbonate	14.2%
Colemanite	14.3
Talc	14.3
Cornwall Stone	14.3
Spodumene	14.3
Kaolin	14.3
Flint	14.3
	100.0%
Add: Zinc Oxide	14.3%
Rutile	3.4%

### Vanilla Ice Cream Glaze (Cone 5)

Dolomite	17.0%
Kingman Feldspar	34.1
Frit 3134 (Ferro)	14.9
Kaolin	17.0
Flint	17.0
	100.0%
Add: Granular Rutile	1.7%

### Transparent White Glaze (Cone 5)

Barium Carbonate	23.0%
Dolomite	10.6
Petalite	37.2
Kaolin	11.5
Flint	17.7
	100.0%

### Cold Snow White Glaze (Cone 5)

Dolomite	12.6%
Frit 3124 (Ferro)	18.7
Petalite	50.0
Kaolin	12.5
Flint	6.2
	100.0%
Add: Zinc Oxide	12.5%

### Snow White Satin Glaze (Cone 5)

Barium Carbonate	23.5%
Colemanite	17.6
Petalite	35.3
Kaolin	11.8
Flint	11.8
	100.0%
Add: Tin Oxide	4.2%

### White Frosting Glaze (Cone 5)

Whiting	25.2%
Custer Feldspar	26.7
Flint	48.1
	100.0%
Add: Magnesium Zirconium Silicate	8.0%
Zirconium Spinel	8.0%

### Mope White Glaze 1 (Cone 5)

Lithium Carbonate	4.7%
Frit 3134 (Ferro)	52.4
Kaolin	38.1
Flint	4.8
	100.0%
Add: Tin Oxide	7.6%

### Mope White Glaze 2 (Cone 5)

Frit 3134 (Ferro)	52.4%
Kaolin	38.1
Flint	9.5
	100.0%
Add: Tin Oxide	7.6%

**White Glaze**  
(Cone 4-6)

Dolomite .....	13%
Wollastonite .....	22
Nepheline Syenite .....	43
Kaolin .....	22
	<u>100%</u>

Add: Zinc Oxide ..... 3%

**Off-White Stain Matt Glaze**  
(Cone 5-6)

Barium Carbonate .....	5%
Whiting .....	19
Custer Feldspar .....	54
Kaolin .....	16
Flint .....	6
	<u>100%</u>

Add: Zinc Oxide ..... 9%  
Rutile (milled) ..... 5%

Also try this without the rutile.

**White Glaze with Markings**  
(Cone 5-6)

Cryolite .....	8%
Lithium Carbonate .....	8
Whiting .....	7
Kaolin .....	30
Flint .....	47
	<u>100%</u>

Add: Titanium Dioxide ..... 13%  
Zinc Oxide ..... 34%

**White Matt Glaze**  
(Cone 5-6)

Lithium Carbonate .....	12%
Whiting .....	5
Kaolin .....	28
Flint .....	55
	<u>100%</u>

Add: Titanium Dioxide ..... 8%  
Zinc Oxide ..... 25%

Note: Test all recipes before use. Materials, firing conditions and clay bodies vary from studio to studio.

**Turner's White**

Dolomite .....	10%
Whiting .....	9
Soda Feldspar .....	25
Custer Feldspar .....	20
EPK Kaolin .....	18
Talc .....	6
Silica .....	12
	<u>100%</u>

Add: Bentonite ..... 2%  
Zircopax ..... 8%

**Gordon Baldwin's**  
**Cone 7 Clear**  
Cone 7 oxidation

Custer Feldspar	41.00%
Whiting	23.00
Ball Clay	20.00
Silica	9.00
Dolomite	7.00
	<u>TOTAL: 100.00%</u>

add Tin Oxide ..... 6.00%  
OR  
Zircopax ..... 20.00%

**Surface Texture 1 cone 6/10 red/**

Ball Clay.....	30
Borax.....	50
Tin ox.....	20

**Crystalline Matte Base cone 4/8.**

Kona F-4.....	28
Gerstly Borate.....	4
Lithium carb.....	10
Dolomite.....	18
Barium carb.....	4
Flint.....	30
EPK.....	6
Bentonite.....	2

**B.J. WHITE**

G-200	24.78		
NICK'S SILICA		27.39	
EPK	7.39		
OM4	8.70		
WHITING	18.70		
F-3249	1900	4.0	2.61
ZIRCOPAX		10.43	

**Wynmann Dry Matte cone 6/8**

Nephe Sy.....	50
OM 4.....	20
Dolomite.....	20
Tin ox.....	5
Whiting.....	5

**C.M. WHITE DS**

CUSTER SPAR	19.22		
WHITING	13.51		
OM4	13.51		
NICK'S SILICA	22.62		
GERTSLEY BORATE	10.11		
<del>F-3185</del>	<del>1350</del>	<del>6.0</del>	<del>0.00</del>
F-3249	1900	4.0	13.11
ZIRCOPAX		7.91	

**Hal's White Semimatt Glaze**  
(Cone 5-6)

Magnesium Carbonate .....	8.18%
Whiting .....	16.23
Nepheline Syenite .....	40.13
Edgar Plastic Kaolin .....	8.38
Flint .....	27.08
	<u>100.00%</u>

Add: Tin Oxide ..... 1.50%

**Hal's White Waxy Matt Glaze**  
(Cone 5-6)

Lithium Carbonate .....	11.89%
Whiting .....	16.61
Zinc Oxide .....	1.21
Nepheline Syenite .....	37.32
Edgar Plastic Kaolin .....	7.79
Flint .....	25.18
	<u>100.00%</u>

Add: Tin Oxide ..... 1.50%

**Satin White cone 6**

Custer.....	40
Frit 3124.....	9
Whiting.....	16
Talc.....	9
EPK.....	10
Flint.....	16
Bentonite.....	1

**PAUL'S WHITE GLAZE (Cone 6)**

Gerstley Borate .....	15.7%
Talc .....	8.6
Whiting .....	12.0
Custer Feldspar .....	43.0
Edgar Plastic Kaolin .....	8.6
Flint .....	12.1
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	100.0%

Add: Zircopax ..... 8.1%

**CUSHING SATIN MATT GLAZE (Cone 6)**

Whiting .....	20%
Frit 3124 (Ferro) .....	25
Nepheline Syenite .....	25
Edgar Plastic Kaolin .....	15
Flint .....	15
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	100%

Add: Zircopax ..... 10%

**Shino Translucent Glaze  
(Cone 6, reduction)**

Gerstley Borate .....	5%
Soda Ash .....	4
Spodumene (chemical grade)....	22
Nepheline Syenite .....	54
Kentucky Ball Clay (OM 4)....	15
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	100%

**White Glaze**

(Cone 6-8, oxidation or reduction)

Dolomite .....	19.48%
Gerstley Borate .....	12.99
Soda Feldspar (any) .....	38.96
Flint .....	28.57
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	100.00%

Add: Zinc Oxide ..... 12.99%

An addition of 3%-5% red iron oxide yields a recipe that looks good on dinnerware; apply thinly.

**Wanamaker Matte White cone 6/7**

Dolomite.....	25
Spodumene.....	11
Nephy Sy.....	51
OM 4.....	13
Zircopax.....	12

**White Waxy Matt Glaze (Cone 6)**

Barium Carbonate .....	10.2%
Whiting .....	14.2
Wood Ash .....	15.5
Nepheline Syenite .....	31.9
Edgar Plastic Kaolin .....	6.7
Flint .....	21.5
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	100.0%
Add: Tin Oxide .....	2.0%
Zinc Oxide .....	2.3%

**Matt Glaze 2**

(Cone 6, reduction)

Dolomite .....	21.00%
Gerstley Borate .....	5.25
Custer Feldspar .....	15.75
Nepheline Syenite .....	26.50
Kentucky Ball Clay (OM 4) ..	21.00
Flint .....	10.50
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	100.00%

Color variations are possible with the following additions:

5% Zircopax .....	White
1% Cobalt Oxide .....	Medium Blue
3% Red Iron Oxide .....	Tan
2% Yellow Ocher .....	Light Tan

**Nailpolish pink cone 6 ox/**

Nephy Sy.....	26
Ferro 3195.....	20
EPK.....	15
Flint.....	8
Lithium carb.....	2
Whiting.....	25
Bone Ash.....	5
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	6

Add: Tin ox.....

D.K. (REVISED) SATIN/GLOSSY  
 #11 (VD) WHITE LINER.

CUSTER FELDSPAR - 62  
 WHITING - 14  
 ZINC OXIDE - 6  
 TALC - 8  
 E.P.K. - 10  
 ZIRCOPAX - 8%

Speckled White Semigloss Glaze (Cone 6)

Whiting ..... 14%  
 Nepheline Syenite ..... 31  
 Kaolin ..... 20  
 Flint ..... 35  
 100%

Add: Zinc Oxide ..... 18%  
 Granular Rutile ..... 4%

This is an opaque white, semigloss glaze with small brown speckles.

B.J. (ALFRED) SPODUMENE REVISED TO 9/6  
 MATT GLAZE, TAN, BROWNISH, WHITE IS:

KONA F/4 FELDSPAR - 20  
 CUSTER FELDSPAR - 20  
 SPODUMENE - 20  
 DOLOMITE - 20  
 WHITING - 5  
 KAOLIN - 15  
 + TIN OXIDE - 4%

1G1/1G2 Gloss White

Custer spar ..... 35.0%  
 SGP-1 (ball clay) ..... 12.0  
 Whiting ..... 17.0  
 Flint ..... 19.0  
 Ferro Frit 3134 or 3195 ..... 8.5  
 Pumice ..... 8.5  
 100.0%

For a good opaque white, add 10% superpax.  
 Works with wax resist. Can be used as a  
 majolica base with stains. Minimal settling.

5B Semi-matte White

Custer Spar ..... 17.5%  
 Spodumene ..... 17.5  
 SGP-1 (ball clay) ..... 12.0  
 Wollastonite ..... 36.0  
 Dolomite ..... 17.0  
 100.0%

A nice smooth, slightly off-white semi-matte.  
 Not a good glaze for wax resist decoration.

2H Very Matte White

PVC ..... 35.0%  
 SGP-1 (ball clay) ..... 12.0  
 Whiting ..... 17.0  
 Flint ..... 19.0  
 Lithium Carbonate ..... 8.5  
 Magnesium Carbonate ..... 8.5  
 100.0%

This white is quite matte. May be a good  
 base for strongly fluxing oxides.

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