



Key to Composition ... see page 81

Al Aluminum Oxide Al_2O_3	Pr Praseodymium Oxide Pr_6O_{11}
B Boric Acid B_2O_3	Sb Antimony Oxide Sb_2O_3
Ca Calcium Carbonate CaO	Si Silicon Dioxide SiO_2
Co Cobalt Oxide CoO	Sn Tin Dioxide SnO_2
Cr Chromium Oxide Cr_2O_3	Ti Titanium Dioxide TiO_2
Fe Iron Oxide Fe_2O_3	V Vanadium V_2O_5
Mn Manganese Dioxide MnO_2	Zn Zinc Oxide ZnO
Ni Nickel Oxide NiO	Zr Zirconium Dioxide ZrO_2

Using Mason Stains

For use as a stain in clays as well as for brushwork over or under glaze:

- For $\Delta 10$: mix 1:1 stain to G200 Feldspar.
- For $\Delta 4-6$: mix 1:1 stain to Nepheline Syenite.
- For $\Delta 06$: mix 1:1 stain to Ferro Frit 3124 or Frit 3110.

When making your own glazes, liquid glaze should reach the consistency of whole milk. Add Mason Stains by weight as a percentage of dry ingredients. Use .5% to 3% for Green, Black & Blue, or 2% to 8% for Pink, Purple and Yellow.

When mixing your own clay, add Mason Stains by weight as a percentage of dry ingredients: 2% to 5% for Green, Blue or Black, or 5% to 10% for Pink, Purple and Yellow.

Engobes and underglazes should reach consistency of cream. Add Mason Stains by weight as a percentage of dry ingredients: 3% to 10% for Green, Blue & Black, or 8% to 15% for Pink, Purple and Yellow.

When coloring moist clay, allow for 30% water, then add Mason Stains by weight as a percentage of the estimated dry ingredients (ie, 17½lbs dry clay out of 25lbs total wet clay weight).

Reference Notes (see page 81)

1. Can use as porcelain body stain ($\Delta 6$ & $\Delta 10$)
2. Max firing limit 2156° F (1180° C)
3. Max firing limit 2390° F (1310° C)
4. Max firing limit 1976° F (1080° C)
5. DO NOT USE ZINC in the glaze
6. Stain may be used with or without zinc
7. Zinc not necessary, but gives better results
8. Best results with NO zinc
9. Glaze must contain 6.7%-8.4% calcium oxide

* **Zinc-free glazes** should generally not contain magnesium oxide. Some stain colors containing zinc should be used in glazes without additional zinc. The zinc-free oxide can change the glaze's fired color.

* **Calcium oxide** content (in calcium carbonate) should be 12-15% for best color. Adding the molecular equivalent of calcium oxide with Wollastonite often gives better uniformity, but you should factor in Wollastonite's higher silica content.