

Composition of Raw Materials						
Materiala	Alternate Name	Theoretical Formula	Oxide Supplied	Fraction	Reciprocal*	
Alumina	Calcined Alumina	Al ₂ O ₃	Al ₂ O ₃	1.000	1.000	
Alumina Hydrate	Hydrated Alumina	Al ₂ O ₃ · 3H ₂ O	Al ₂ O ₃	.654	1.531	
Feldspar	Microcline (typical)	K ₂ O · Al ₂ O ₃ · 6SiO ₂	Al ₂ O ₃	.180	5.556	
			K ₂ (Na ₂)O	.130		
			SiO ₂	.680		
Nepyyline Syenite	Typical Composition		Al ₂ O ₃	.250	4.000	
			Na ₂ (K ₂)O	.150		
			SiO ₂	.600		
Kyanite		Al ₂ O ₃ · SiO ₂	Al ₂ O ₃	.567	1.763	
			SiO ₂	.433		
Kaolin	China Clay	Al ₂ O ₃ · 2SiO ₂ · 2H ₂ O	Al ₂ O ₃	.395	2.57	
			SiO ₂	.465		
Cryolite	Kryolith	Na ₂ AlF ₆	Na ₂ O	.443	2.258	
			Al ₂ O ₃	.243		4.118
			F ₂ loss on Volatilization			
Antimony Oxide		Sb ₂ O ₃	Sb ₂ O ₃	1.000	1.000	
Arsenious Oxide	Arsenic	As ₂ O ₃	As ₂ O ₃	1.160	.860	
Barium Carbonate		BaCO ₃	BaO	.777	1.288	
Barium Oxide	Baryta	BaO	BaO	1.000	1.000	
Barium Sulfate	Barytes	BaSO ₄	BaO	.657	1.523	
Boric Oxide	Boracic Acid	B ₂ O ₃ · H ₂ O	B ₂ O ₃	.563	1.776	
Borax	Borax (10 Mol)	Na ₂ O · 2B ₂ O ₃	B ₂ O ₃	.365	2.738	
			Na ₂ O	.163		6.135
Anhydrous Borax	"Pyrobar"	Na ₂ O · 2B ₂ O ₃	B ₂ O ₃	.692	1.445	
Lime, Burnt	Burnt Lime	CaO	CaO	1.000	1.000	
Lime, Hydrated	Calcium Hydrate	CaO · H ₂ O	CaO	.757	1.322	
Limestone	Calcium Carbonate	CaCO ₃	CaO	.560	1.786	
Calcium Carbonate	Whiting	CaCO ₃	CaO	.560	1.786	
Lime, Dolomitic	Burnt Dolomite	CaO · MgO	CaO	.582	1.720	
			MgO	.418		2.390
Dolomite	Raw Limestone, Dolo.	CaO · MgO · 2CO ₃	CaO	.304	3.290	
			MgO	.216		4.580
Lime, Hydrated, Dol.	Finishing Lime	CaO · MgO · 2H ₂ O	CaO	.423	2.363	
			MgO	.304	3.290	
Litharge	Lead Oxide, Yellow	PbO	PbO	1.000	1.000	
Red Lead	Minium	Pb ₃ O ₄	PbO	.977	1.024	
Lithium Carbonate	Lithium	Li ₂ CO ₃	Li ₂ O	.404	2.473	
Fluorspar	Calcium Floride	CaF ₂	CaF ₂	1.000	1.000	
Bone Ash	Calcium Phosphate	3CaO · 2P ₂ O ₅	CaO	.372	2.700	
			P ₂ O ₅	.628		1.592
Sodium Fluosilicate	Sodium Silicafluoride	Na ₂ SiF ₆				
Iron Oxide (Red)	Iron Oxide	Fe ₂ O ₃	Fe ₂ O ₃	1.000	1.000	
Potassium Hydrate	Caustic Potash	KOH	K ₂ O	.838	1.194	
Potassium Nitrate	Saltpeter	KNO ₃	K ₂ O	.465	2.151	
Potassium Carbonate	Calcined Potash	K ₂ CO ₃	K ₂ O	.681	1.469	
Glassmaker's Potash	Potassium Carbonate, Hyd.	K ₂ CO ₃ · 1.5H ₂ O	K ₂ O	.570	1.754	
Sand	Glass Sand, Quartz	SiO ₂	SiO ₂	1.000	1.000	
Soda Ash	Sodium Carbonate	Na ₂ CO ₃	Na ₂ O	.585	1.709	
Sodium Nitrate	Saltpeter	NaNO ₃	Na ₂ O	.365	2.741	
Salt Cake	Sodium Sulfate	Na ₂ SO ₄	Na ₂ O	.437	2.290	
Strontium Carbonate		SrCO ₃	SrO	.702	1.425	
Silver Nitrate		AgNO ₃	Ag ₂ O	.682	1.466	
Gold Chloride		AuCl ₃	Au	.649	1.540	
Black Uranium		U ₂ O ₆	UO ₃	1.019	.981	
Zinc Oxide	Zinc Oxide	ZnO	ZnO	1.000	1.000	