

Big Red- Δ 6

Lab 1-Pick-A-Part

Big Red

Original

070822-1

G200 EU	23.37
Whiting	27.11
EPK	11.17
Flint	12.73
3134	25.62
Chrome Oxide	0.10
Tin Oxide	8.00
Water	60



1-3 Second Dip



2-3 Second Dips



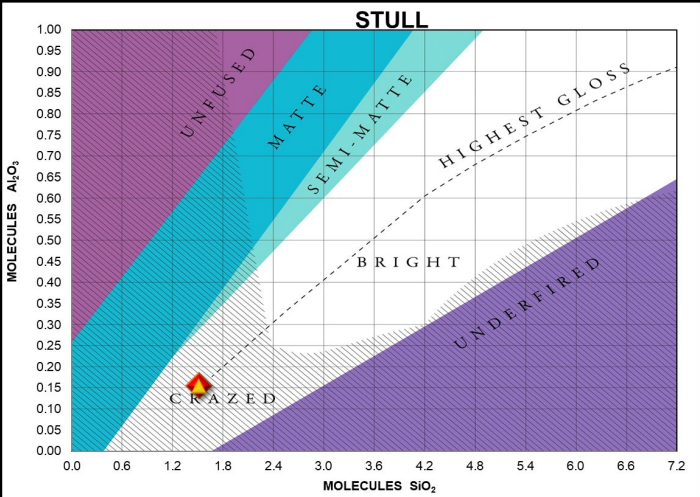
Reduction



Oxidation

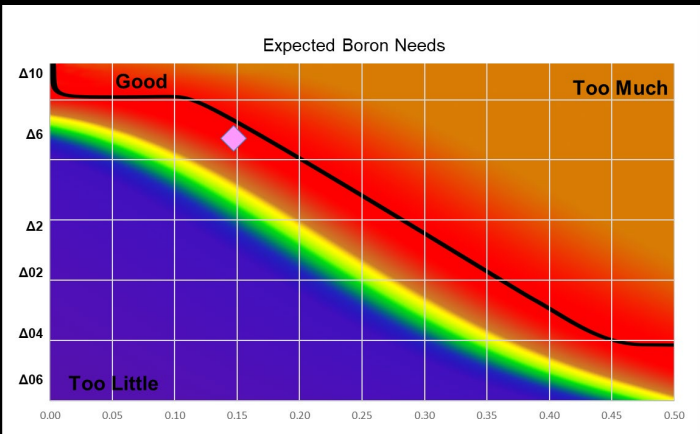
UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.69	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.82
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.17	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 1.52	Collective "Al ₂ O ₃ " 0.16	Na ₂ O 0.10	K ₂ O 0.05	MgO 0.00	CaO 0.74
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.15	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.10	ZnO	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

Lab1-Oxidation



070822-1



070822-2



070822-3

1-3 Second Dip



070822-4



070822-5



070822-6



Original



w/o G200 EU



w/o Whiting

2-3 Second Dips



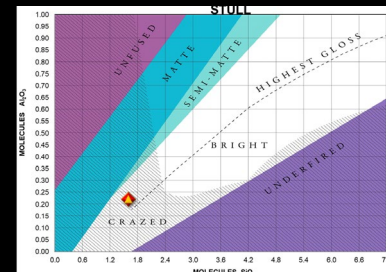
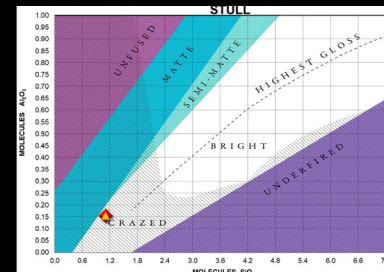
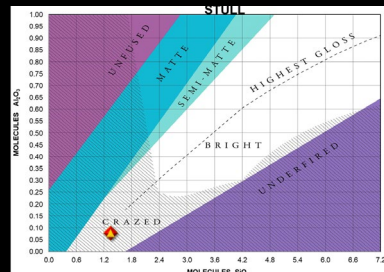
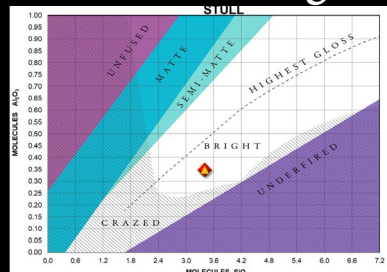
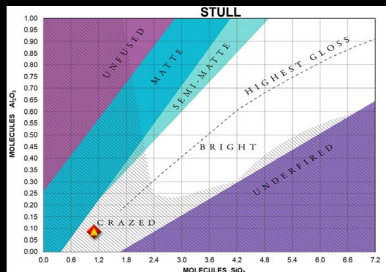
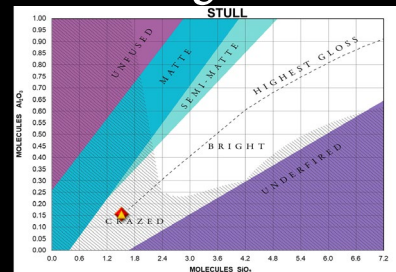
w/o Kaolin



w/o Flint



w/o Frit



Ceramic
Materials
Workshop

Lab 1-Oxidation



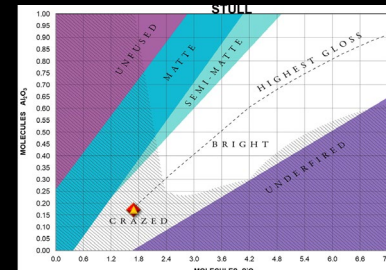
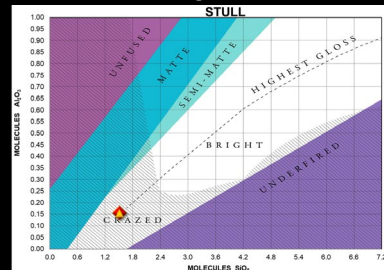
070822-1

070822-7



Original

w/o Colorant



Ceramic
Materials
Workshop

Lab 1-Reduction



070822-1

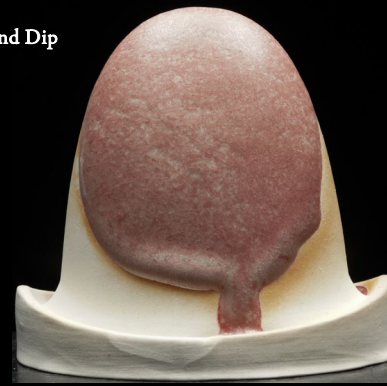


070822-2



070822-3

1-3 Second Dip



070822-4



070822-5



070822-6



Original

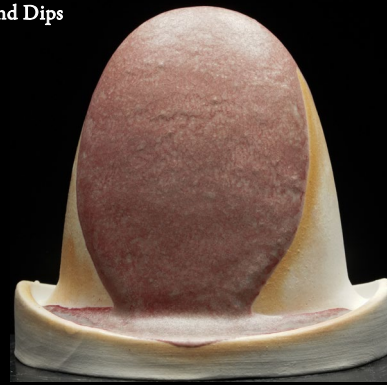


w/o G200 EU



w/o Whiting

2-3 Second Dips



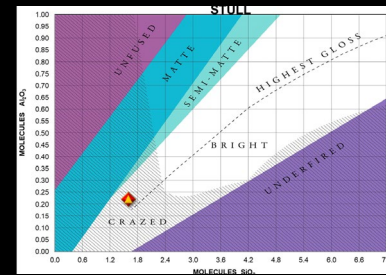
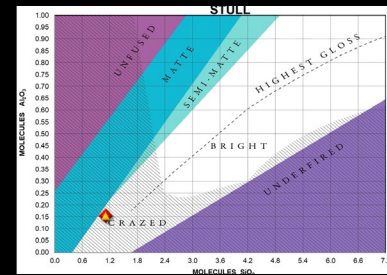
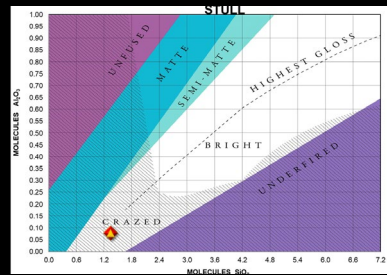
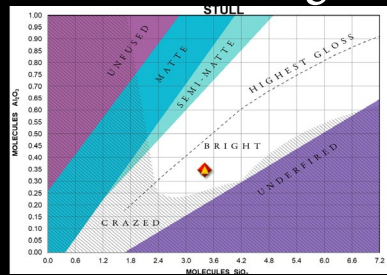
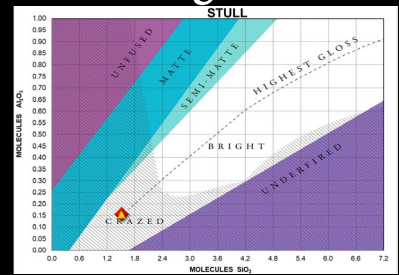
w/o Kaolin



w/o Flint

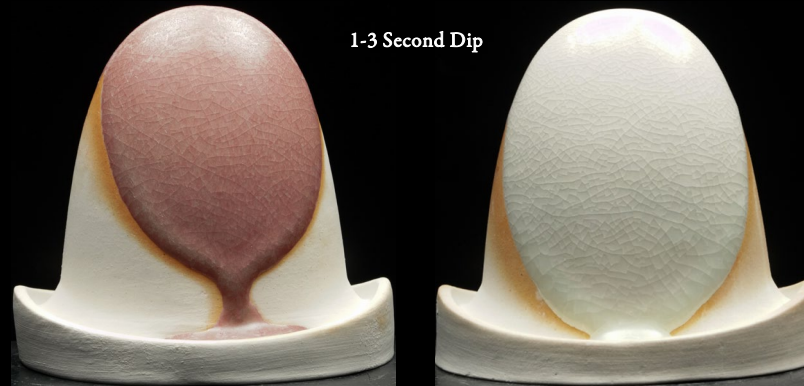


w/o Frit



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Lab 1-Reduction



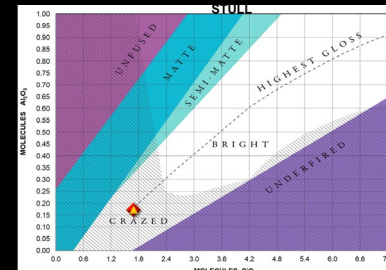
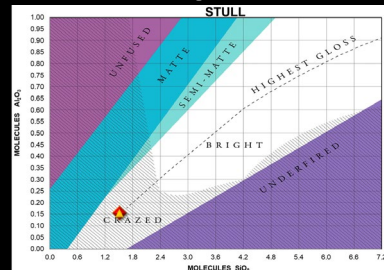
070822-1

070822-7



Original

w/o Colorant



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Big Red

Original

070822-1

G200 EU	23.37
Whiting	27.11
EPK	11.17
Flint	12.73
3134	25.62
Chrome Oxide	0.10
Tin Oxide	8.00
Water	60



1-3 Second Dip



2-3 Second Dips

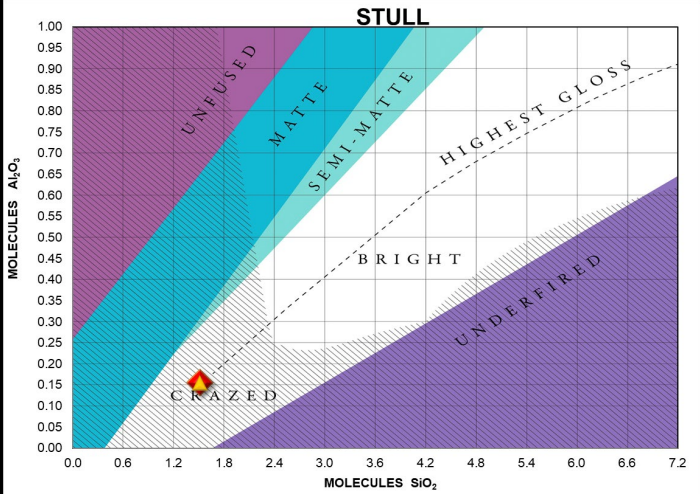


Reduction



Oxidation

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.69	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.82
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.17	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 1.52	Collective "Al ₂ O ₃ " 0.16	Na ₂ O 0.10	K ₂ O 0.05	MgO 0.00	CaO 0.74
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.15	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.10	ZnO	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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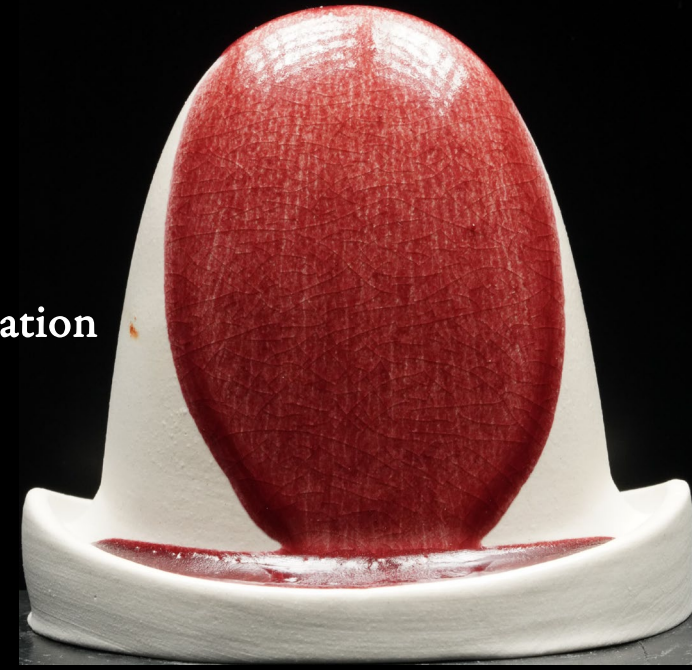
Big Red

w/o Alkali Metal
070822-2

G200 EU	
Whiting	35.38
EPK	14.57
Flint	16.62
3134	33.43
Chrome Oxide	0.10
Tin Oxide	8.00
Water	70



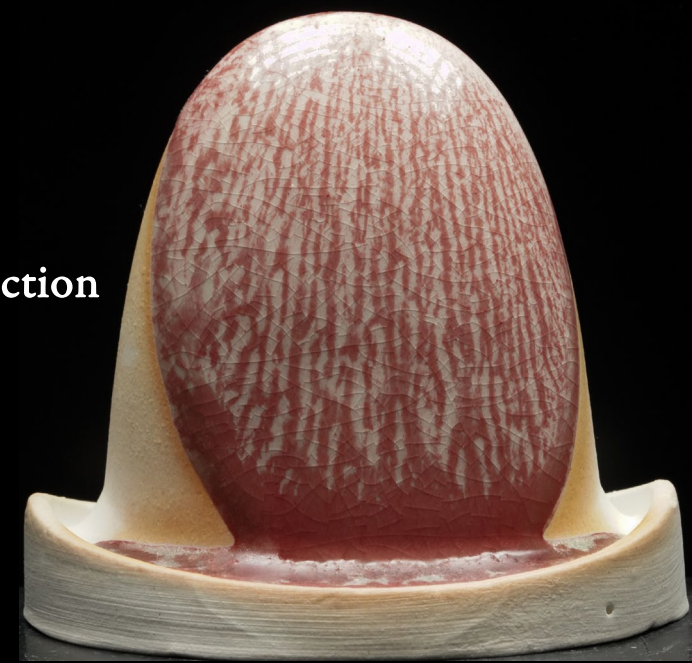
1-3 Second Dip



2-3 Second Dips



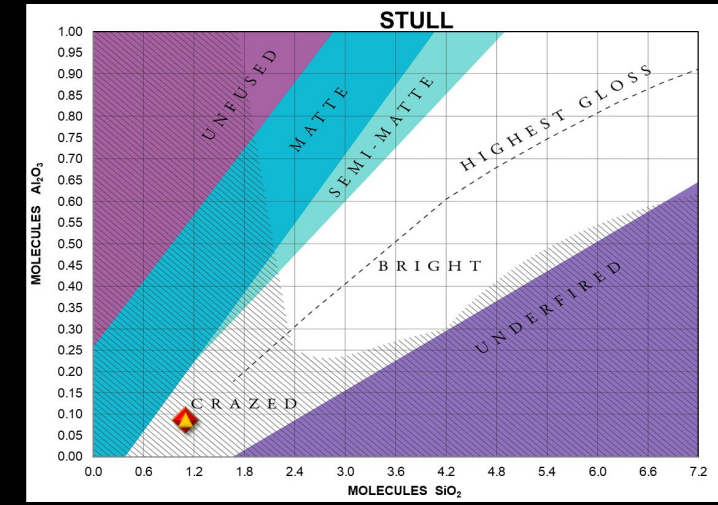
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 12.57 : 1		Alkali Metals 0.10		Alkaline Earths 0.90	
SiO ₂ 1.21	Collective "Al ₂ O ₃ " 0.10	Na ₂ O 0.10	K ₂ O 0.00	MgO 0.00	CaO 0.89
B ₂ O ₃ 0.18	Al ₂ O ₃ 0.09	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 12.57 : 1		Alkali Metals 0.18		Alkaline Earths 0.82	
SiO ₂ 1.10	Collective "Al ₂ O ₃ " 0.09	Na ₂ O 0.09	K ₂ O 0.00	MgO 0.00	CaO 0.81
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.09	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.09	ZnO	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Big Red

w/o Alkaline Earth
070822-3

Oxidation



1-3 Second Dip



2-3 Second Dips

Reduction

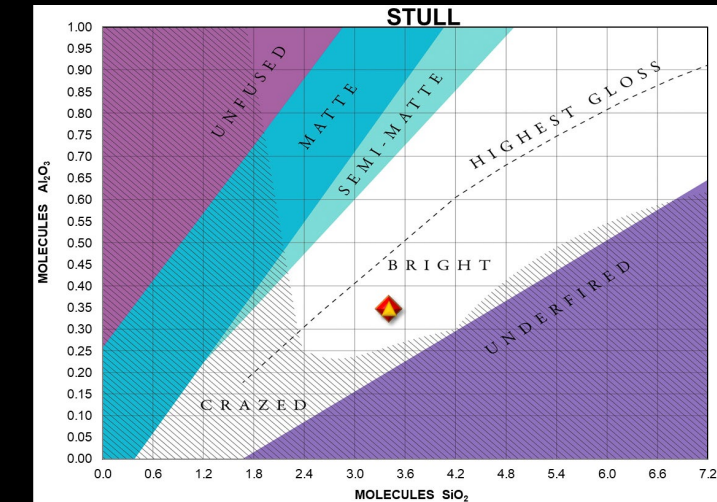


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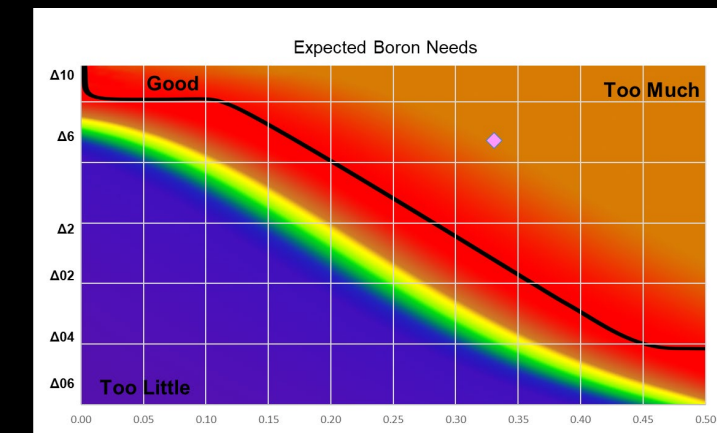
UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.43		Alkaline Earths 0.57	
SiO ₂ 4.18	Collective "Al ₂ O ₃ " 0.43	Na ₂ O 0.28	K ₂ O 0.15	MgO 0.01	CaO 0.56
B ₂ O ₃ 0.41	Al ₂ O ₃ 0.43	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.53		Alkaline Earths 0.47	
SiO ₂ 3.41	Collective "Al ₂ O ₃ " 0.35	Na ₂ O 0.22	K ₂ O 0.12	MgO 0.00	CaO 0.45
B ₂ O ₃ 0.33	Al ₂ O ₃ 0.35	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.19	ZnO	FeO 0.01
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Big Red

w/o Kaolin

070822-4

G200 EU	26.31
Whiting	30.52
EPK	
Flint	14.33
3134	28.84
Chrome Oxide	0.11
Tin Oxide	8.71
Water	60



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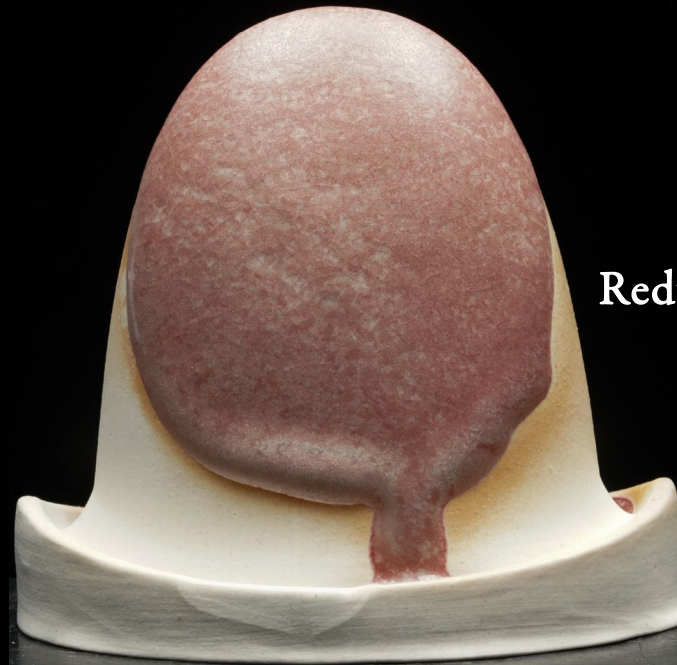


1-3 Second Dip

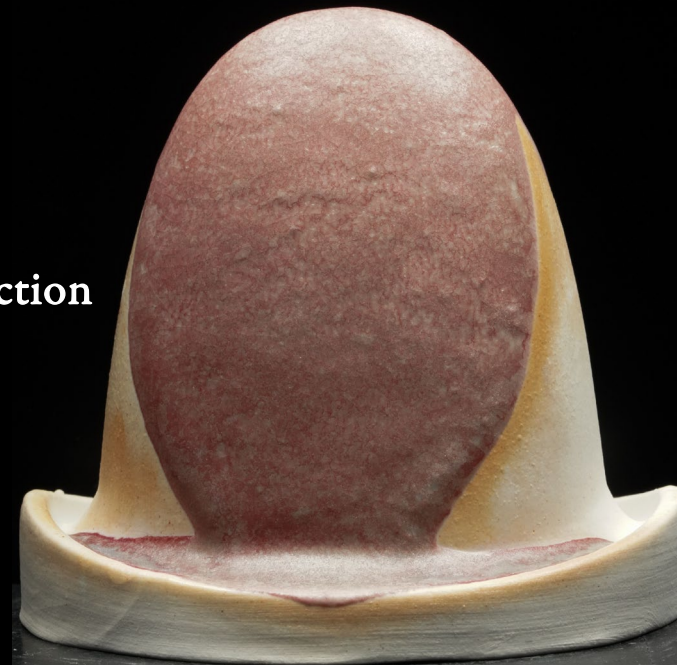


2-3 Second Dips

Oxidation



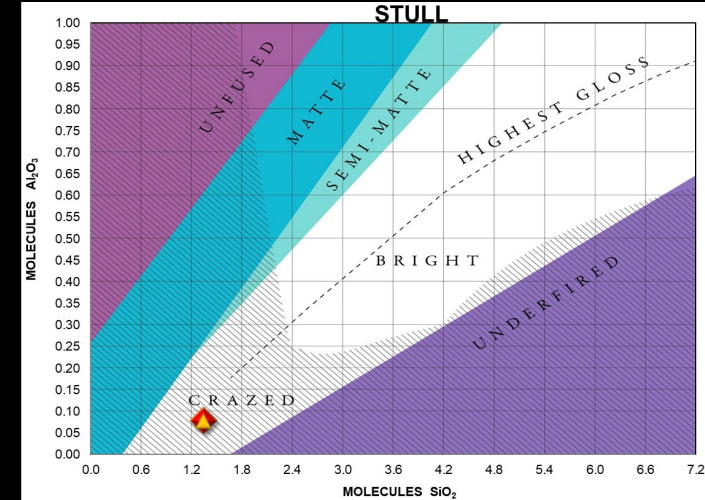
Reduction



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UMF

SiO ₂ :Al ₂ O ₃ Ratio 17.11 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.50	Collective "Al ₂ O ₃ " 0.09	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.83
B ₂ O ₃ 0.17	Al ₂ O ₃ 0.09	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 17.11 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 1.35	Collective "Al ₂ O ₃ " 0.08	Na ₂ O 0.10	K ₂ O 0.05	MgO 0.00	CaO 0.74
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.08	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.10	ZnO	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Big Red

w/o Silica

070822-5

G200 EU	26.78
Whiting	31.07
EPK	12.80
Flint	
3134	29.36
Chrome Oxide	0.11
Tin Oxide	8.71
Water	60



1-3 Second Dip



2-3 Second Dips



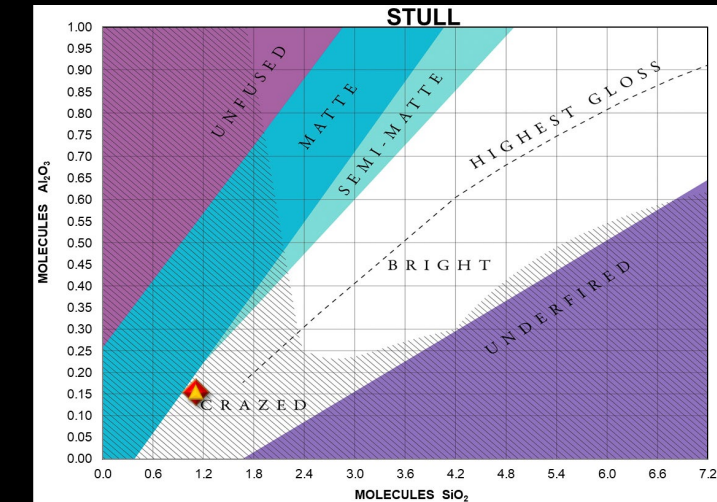
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.16 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.23	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.82
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.17	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.16 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.11	Collective "Al ₂ O ₃ " 0.16	Na ₂ O 0.10	K ₂ O 0.05	MgO 0.00	CaO 0.74
B ₂ O ₃ 0.15	Al ₂ O ₃ 0.15	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.10	ZnO	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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Big Red

w/o Frit

070822-6

G200 EU	31.42
Whiting	36.45
EPK	15.01
Flint	17.12
3134	
Chrome Oxide	0.11
Tin Oxide	8.71
Water	70



1-3 Second Dip



2-3 Second Dips

Oxidation



1-3 Second Dip

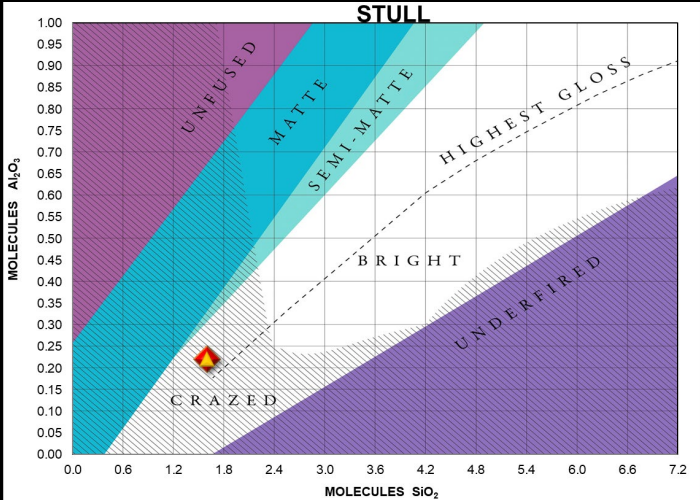


2-3 Second Dips

Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.19 : 1		Alkali Metals 0.11		Alkaline Earths 0.89	
SiO ₂ 1.82	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.03	K ₂ O 0.09	MgO 0.00	CaO 0.88
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.19 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 1.60	Collective "Al ₂ O ₃ " 0.22	Na ₂ O 0.02	K ₂ O 0.08	MgO 0.00	CaO 0.77
B ₂ O ₃	Al ₂ O ₃ 0.22	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.12	ZnO	FeO 0.01
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



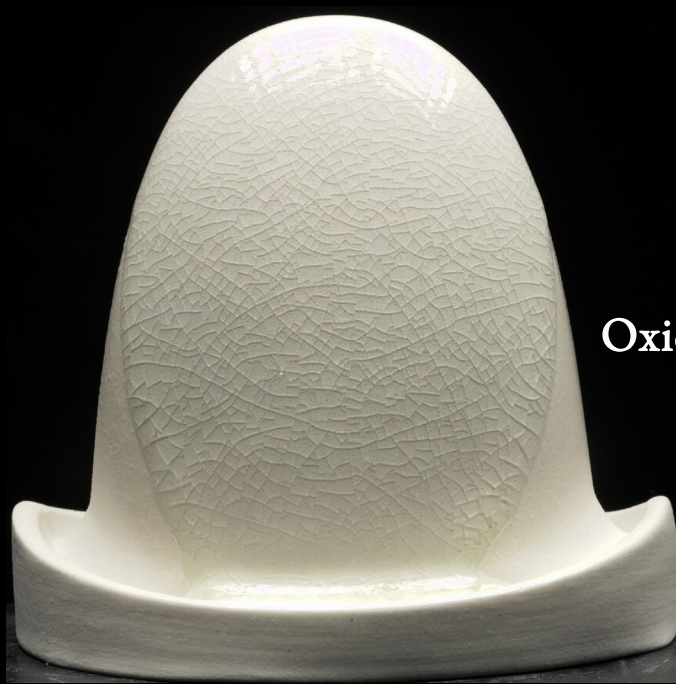
Ceramic
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Big Red

w/o Colorant

070822-7

G200 EU	23.37
Whiting	27.11
EPK	11.17
Flint	12.73
3134	25.62
Chrome Oxide	
Tin Oxide	
Water	65



1-3 Second Dip



2-3 Second Dips

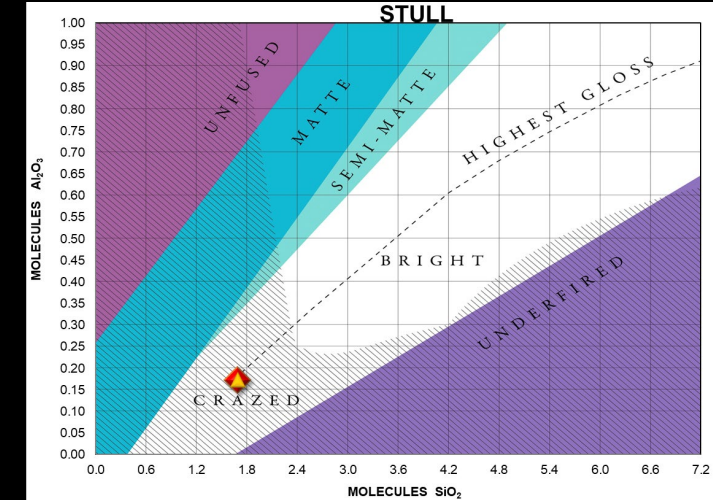


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.69	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.82
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.17	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.75 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 1.69	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.11	K ₂ O 0.06	MgO 0.00	CaO 0.82
B ₂ O ₃ 0.16	Al ₂ O ₃ 0.17	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

