

Zinc Pinc- Δ 10

Lab 1-Pick-A-Part

Zinc Pinc

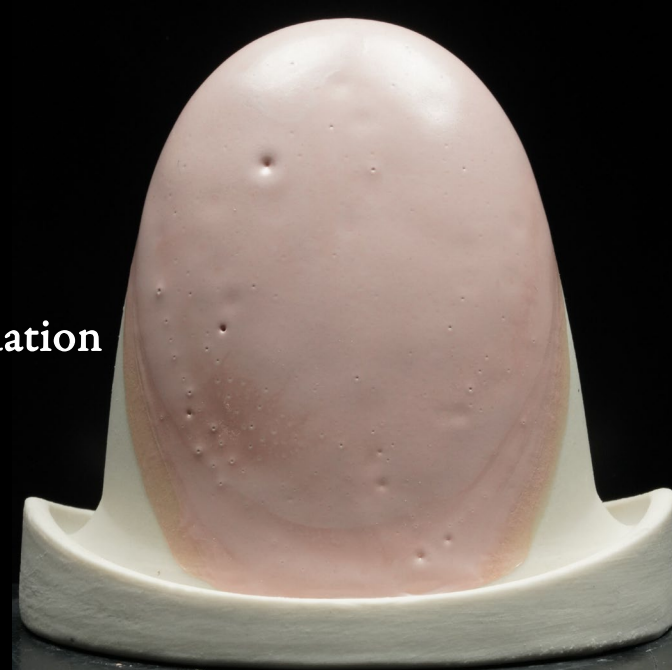
Original

030823-1

Neph Sy	40.00
Zinc Oxide	20.00
EPK	10.00
Flint	30.00
Chrome Oxide	1.00
Water	80



1-3 Second Dip



2-3 Second Dips



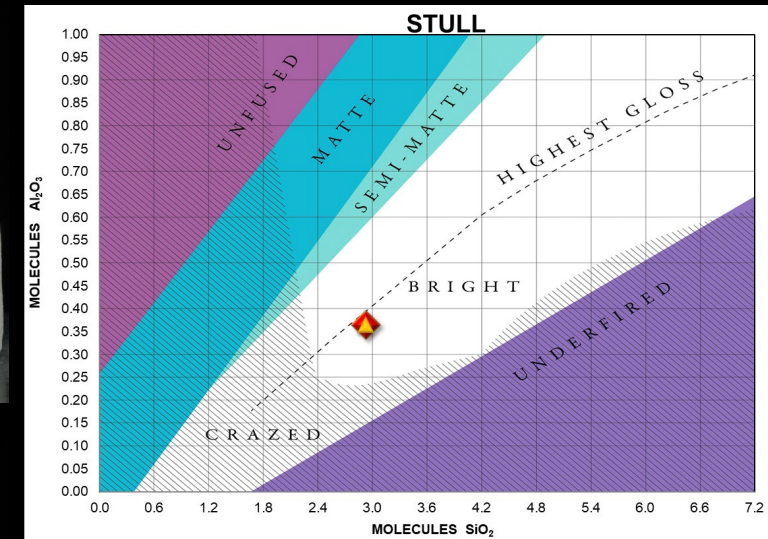
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



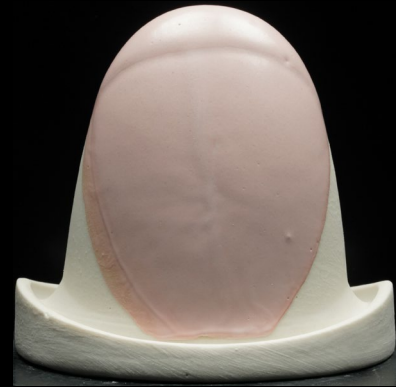
EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
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Lab 1-Oxidation



030823-1

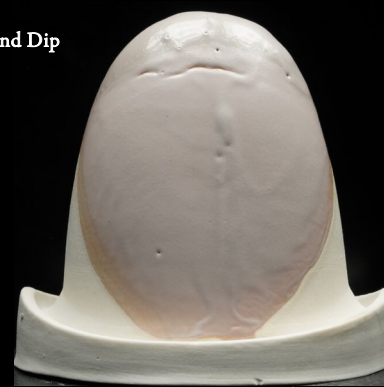


030823-2



030823-3

1-3 Second Dip



030823-4



030823-5



030823-6



Original



w/o Neph Sy



w/o Zinc Ox

2-3 Second Dips



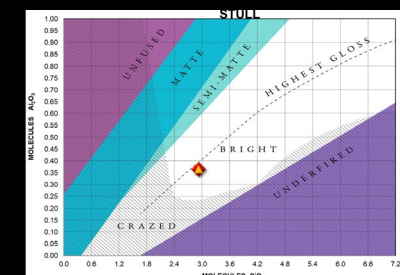
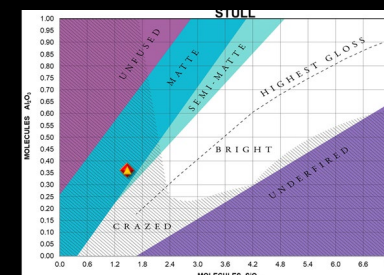
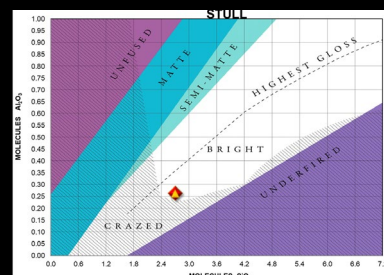
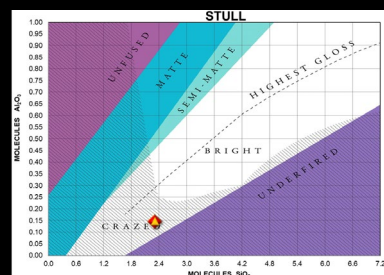
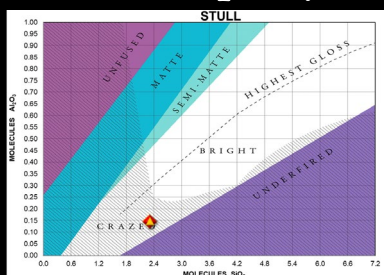
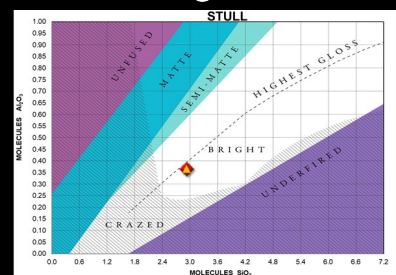
w/o Kaolin



w/o Flint



w/o Colorants



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Lab 1-Reduction



030823-1



030823-2



030823-3



030823-4



030823-5



030823-6

1-3 Second Dip



Original



w/o Neph Sy



w/o Zinc Ox



w/o Kaolin

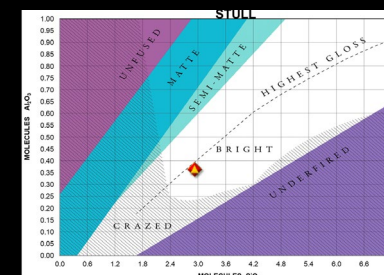
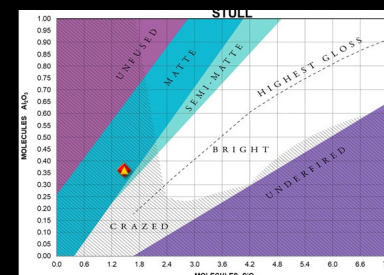
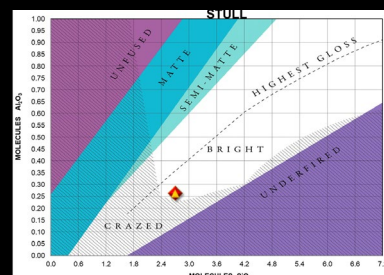
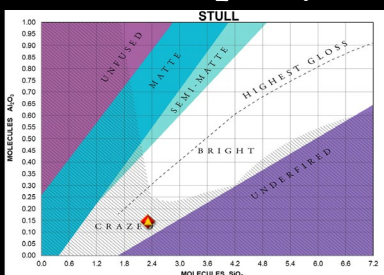


w/o Flint



w/o Colorants

2-3 Second Dips



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Zinc Pinc

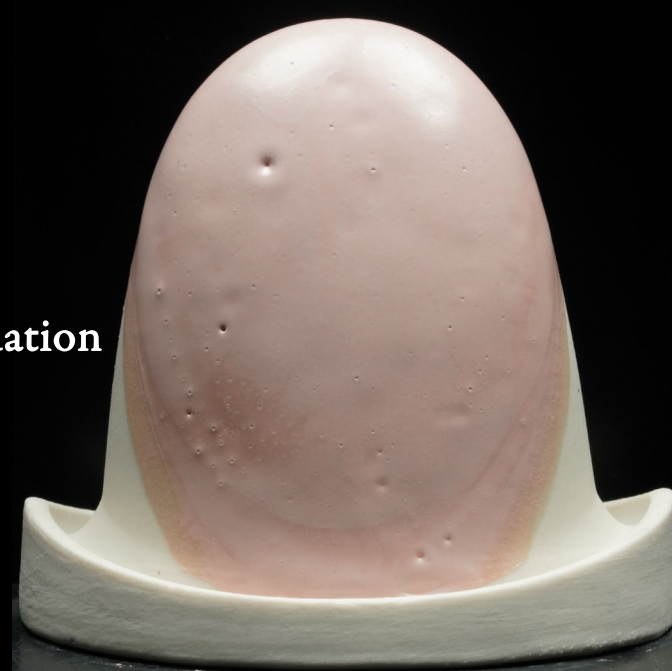
Original

030823-1

Neph Sy	40.00
Zinc Oxide	20.00
EPK	10.00
Flint	30.00
Chrome Oxide	1.00
Water	80



1-3 Second Dip



2-3 Second Dips

Oxidation

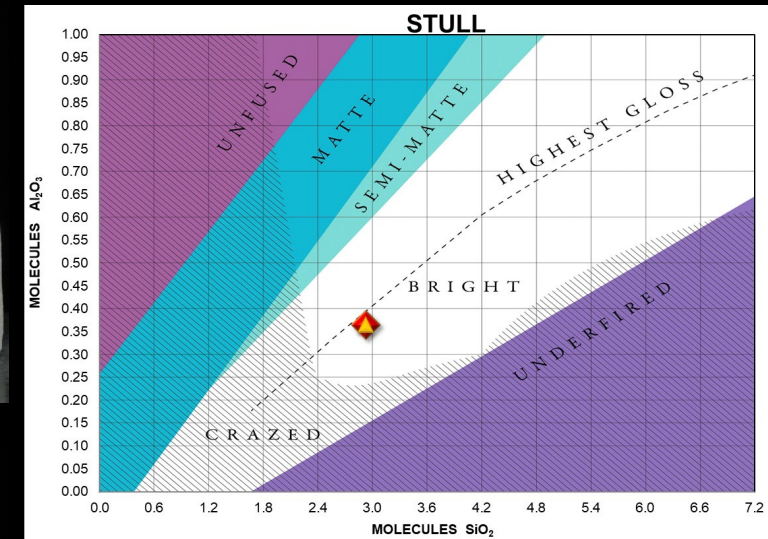


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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Zinc Pinc

w/o Alkali Metal

030823-2

Neph Sy	
Zinc Oxide	33.33
EPK	16.67
Flint	50.00
Chrome Oxide	1.00
Water	90



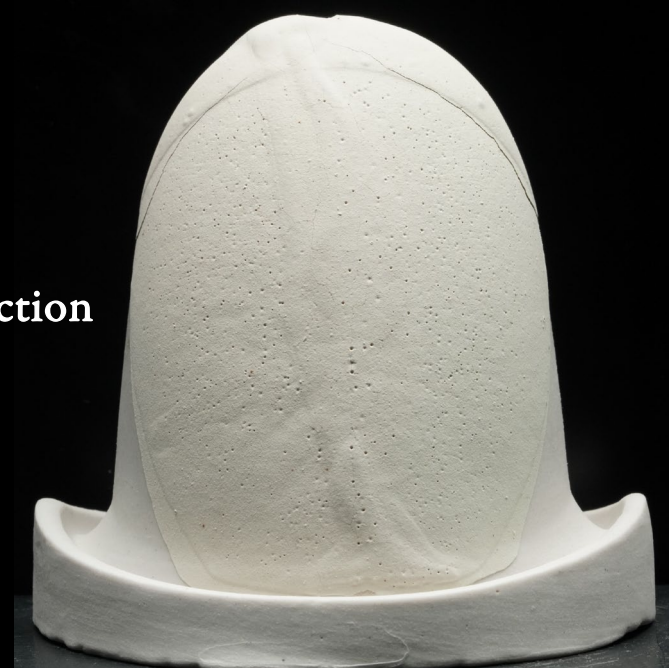
1-3 Second Dip



2-3 Second Dips



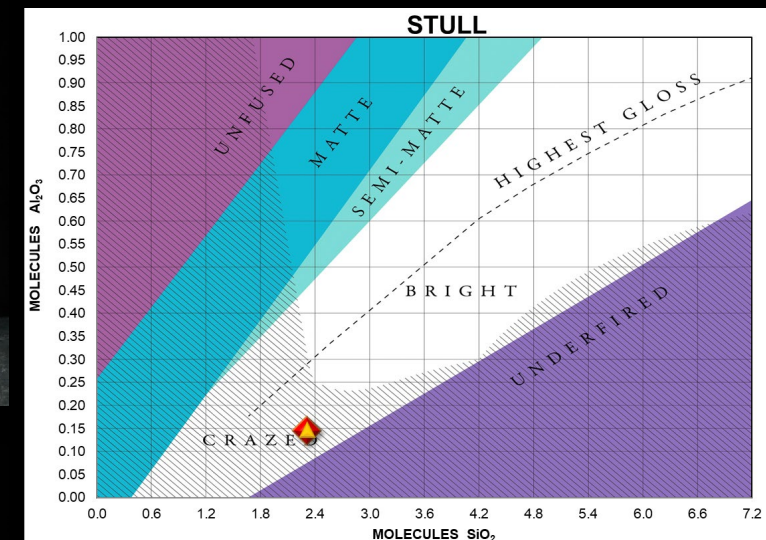
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 15.65 : 1		Alkali Metals 0.00		Alkaline Earths 1.00	
SiO ₂ 2.31	Collective "Al ₂ O ₃ " 0.15	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.00
B ₂ O ₃	Al ₂ O ₃ 0.14	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.99	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 15.65 : 1		Alkali Metals 0.00		Alkaline Earths 1.00	
SiO ₂ 2.31	Collective "Al ₂ O ₃ " 0.15	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.00
B ₂ O ₃	Al ₂ O ₃ 0.14	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.99	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



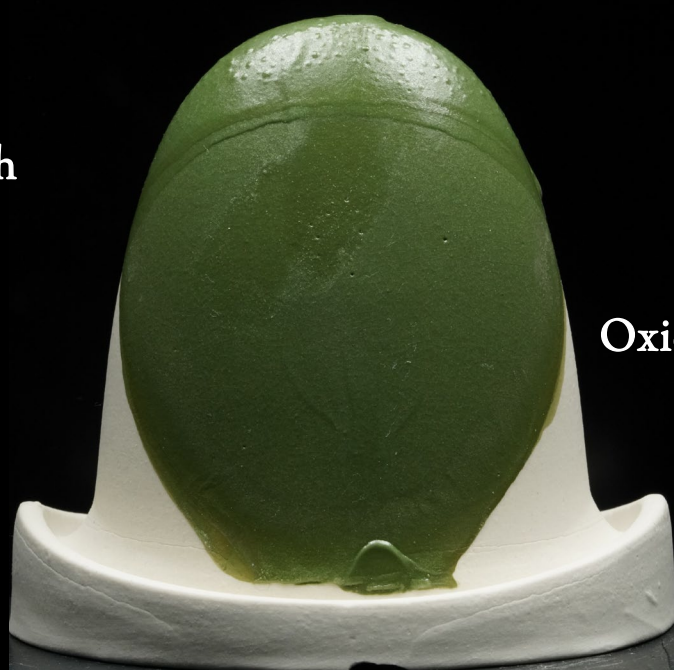
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Zinc Pinc

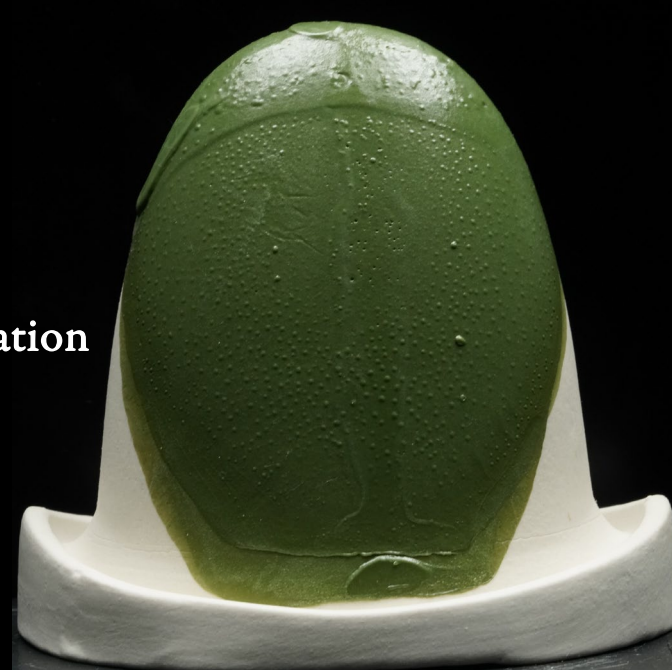
w/o Alkaline Earth

030823-3

Neph Sy	50.00
Zinc Oxide	
EPK	12.50
Flint	37.50
Chrome Oxide	1.00
Water	80



1-3 Second Dip



2-3 Second Dips



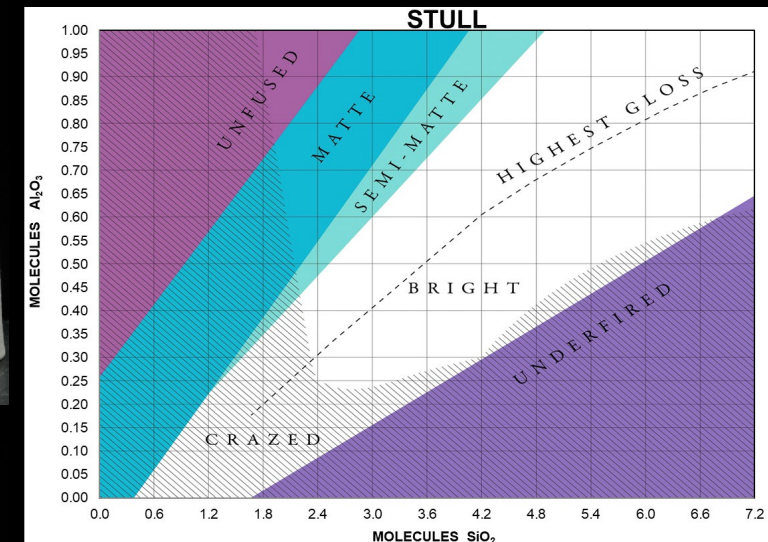
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.94		Alkaline Earths 0.06	
SiO ₂ 10.83	Collective "Al ₂ O ₃ " 1.35	Na ₂ O 0.73	K ₂ O 0.21	MgO 0.01	CaO 0.03
B ₂ O ₃	Al ₂ O ₃ 1.35	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.94		Alkaline Earths 0.06	
SiO ₂ 10.83	Collective "Al ₂ O ₃ " 1.35	Na ₂ O 0.73	K ₂ O 0.21	MgO 0.01	CaO 0.03
B ₂ O ₃	Al ₂ O ₃ 1.35	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.01	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃ 0.06	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
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Zinc Pinc

w/o Kaolin
030823-4

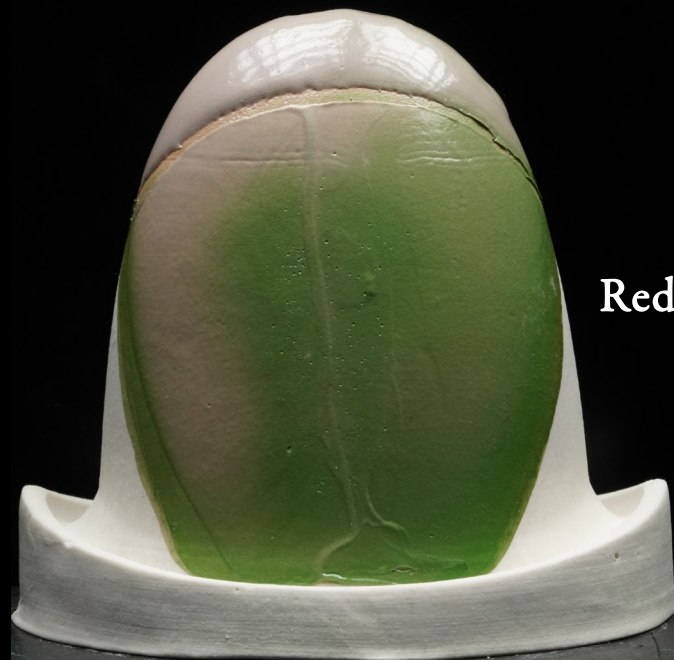
Neph Sy	44.44
Zinc Oxide	22.22
EPK	
Flint	33.33
Chrome Oxide	1.00
Water	80



1-3 Second Dip



2-3 Second Dips



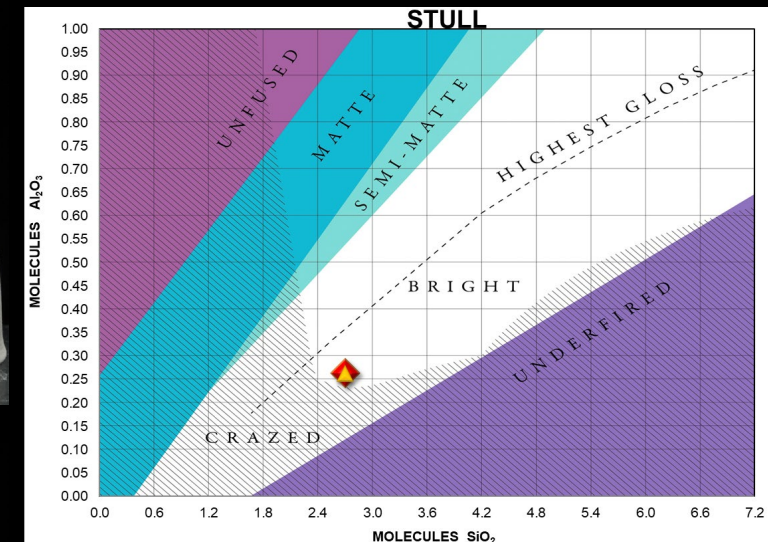
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.26 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.70	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.26 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.70	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.00
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

Zinc Pinc

w/o Silica

030823-5

Neph Sy	57.14
Zinc Oxide	28.57
EPK	14.29
Flint	
Chrome Oxide	1.00
Water	80



1-3 Second Dip



2-3 Second Dips



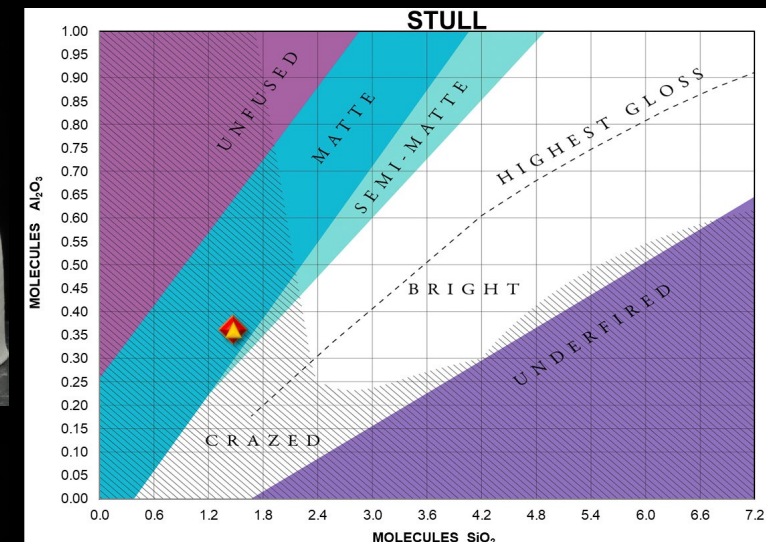
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 4.06 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.47	Collective "Al ₂ O ₃ " 0.36	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 4.06 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.47	Collective "Al ₂ O ₃ " 0.36	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.00
Cr ₂ O ₃ 0.01	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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Zinc Pinc

w/o Colorant

030823-6

Neph Sy	40.00
Zinc Oxide	20.00
EPK	10.00
Flint	30.00
Chrome Oxide	
Water	80



1-3 Second Dip



2-3 Second Dips



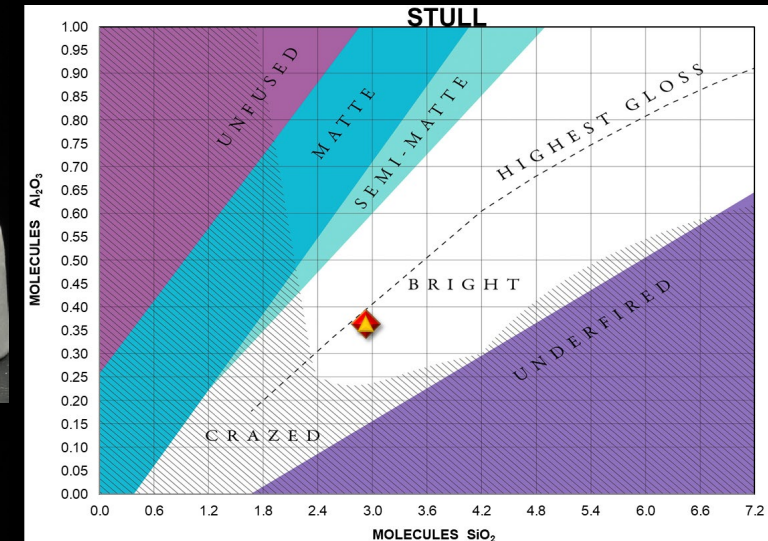
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.73	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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