

Tangerine- Δ 6

Lab 4-Back to the Flux Capacity

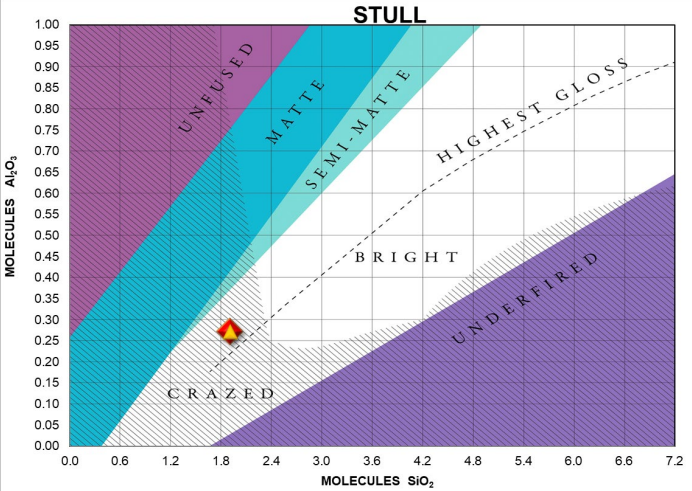


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UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

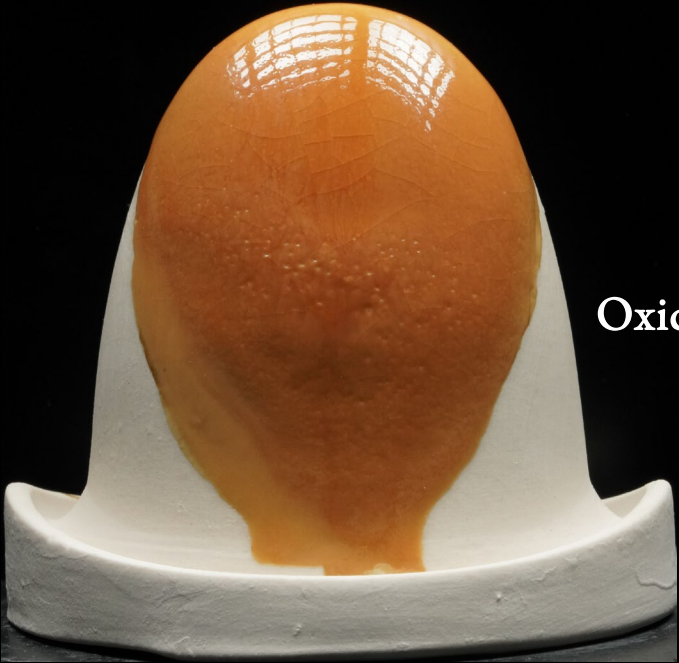


Tangerine

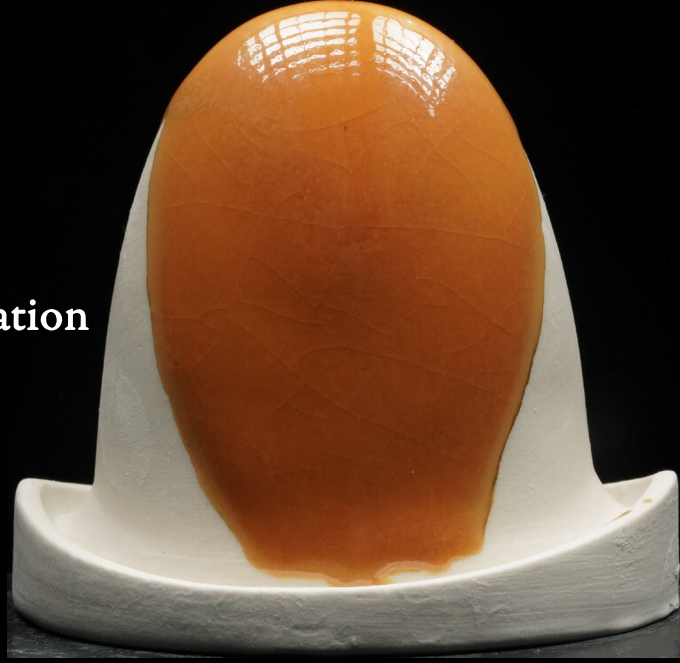
Original

071122-1

Neph Sy	42.25
Whiting	17.13
Zinc Oxide	11.42
EPK	7.99
Flint	21.20
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60

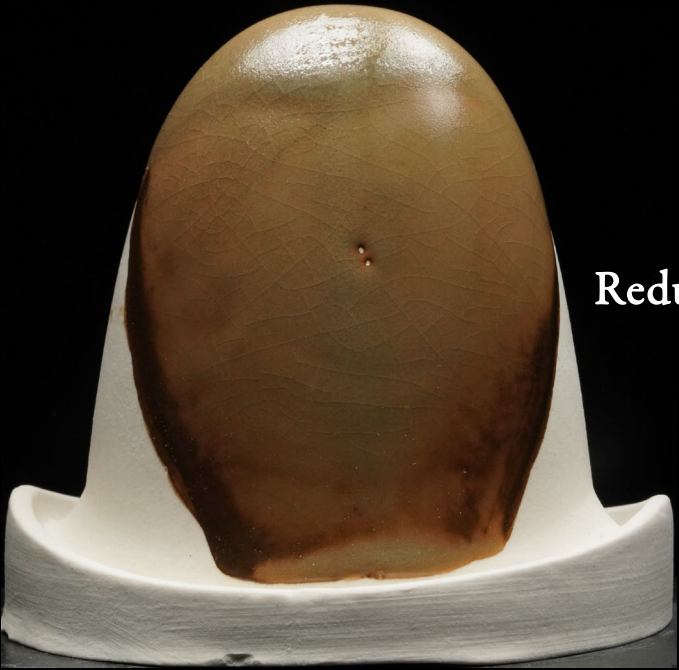


1-3 Second Dip



2-3 Second Dips

Oxidation



1-3 Second Dip



2-3 Second Dips

Reduction



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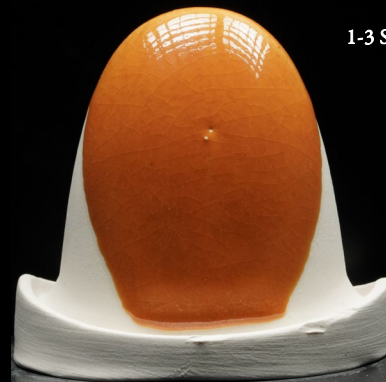
Lab 4-Alkali Metals-Oxidation



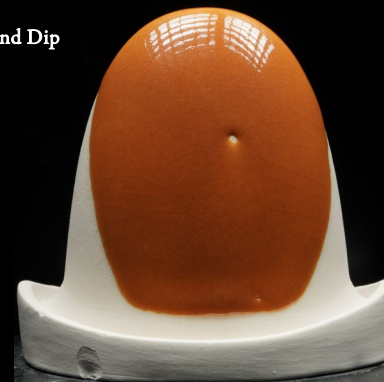
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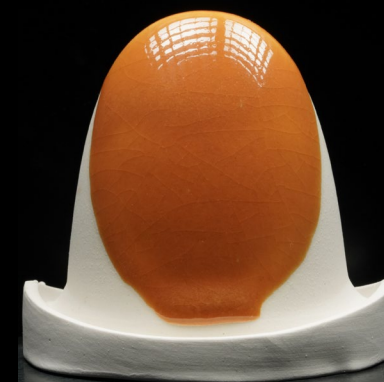
071122-34



071122-35



071122-36



071122-37



071122-38



Original (NS)



w/G200 EU



w/Minspar



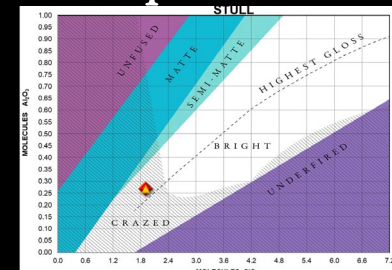
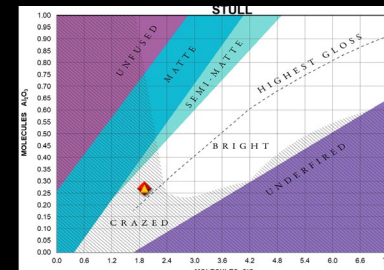
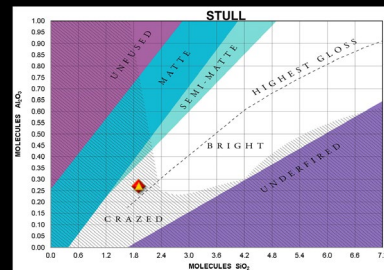
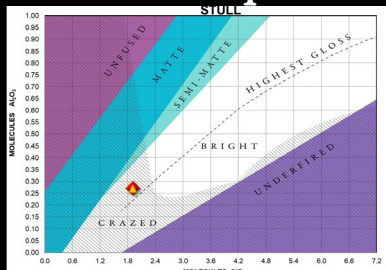
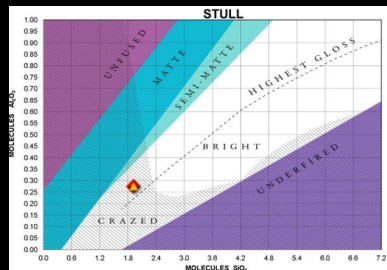
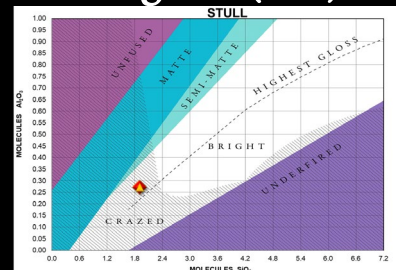
w/Custer



w/Mahavir



w/Spodumene



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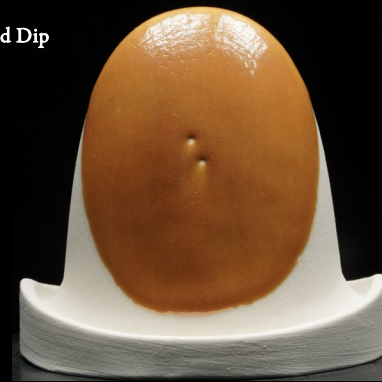
Lab 4-Alkali Metals-Oxidation



071122-1



071122-40



071122-42

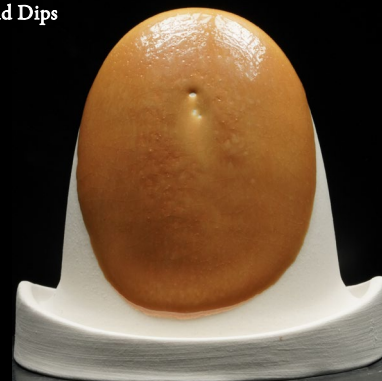
1-3 Second Dip



Original (NS)

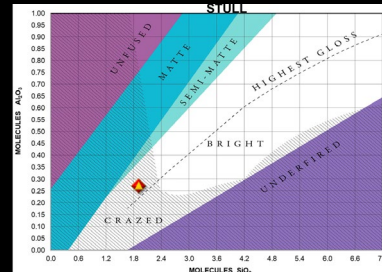
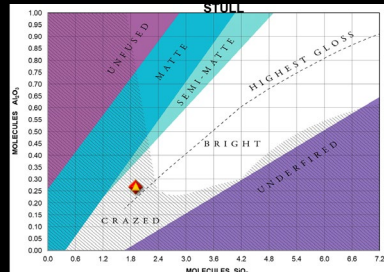
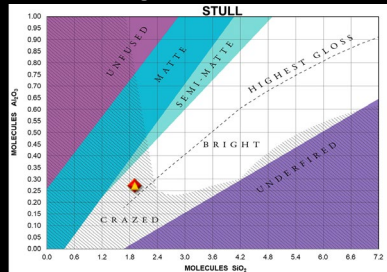


w/Frit 3110



w/Lithium Carb

2-3 Second Dips



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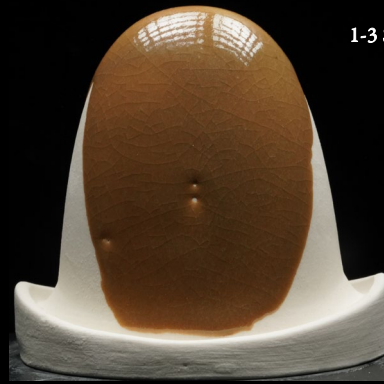
Lab 4-Alkali Metals-Reduction



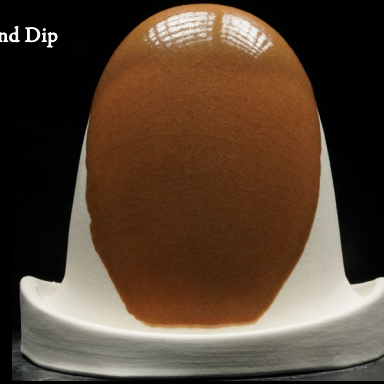
071122-1



071122-34



071122-35



071122-36



071122-37



071122-38



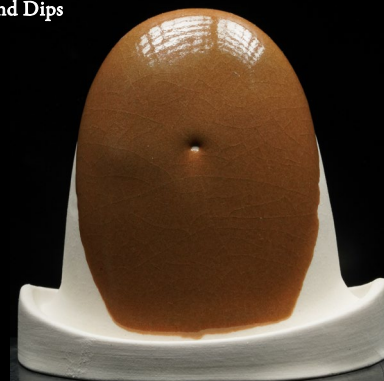
Original (NS)



w/G200 EU



w/Minspar



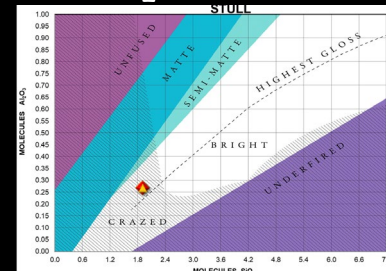
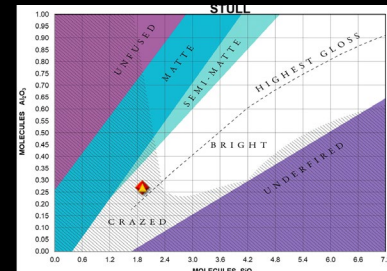
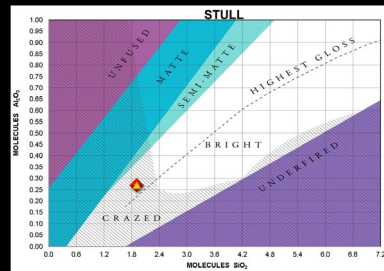
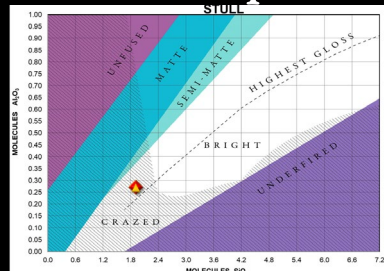
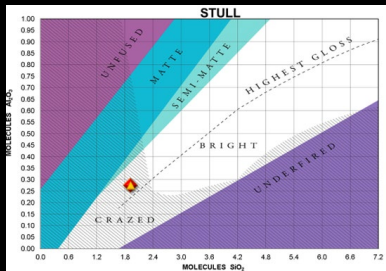
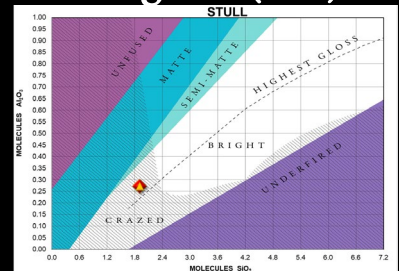
w/Custer



w/Mahavir



w/Spodumene



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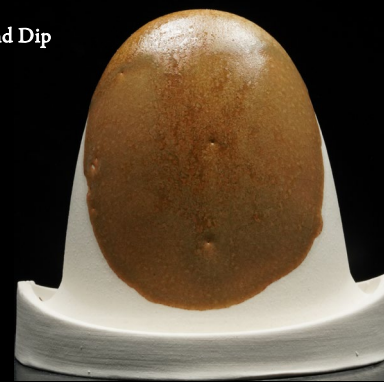
Lab 4-Alkali Metals-Reduction



071122-1



071122-40



071122-42

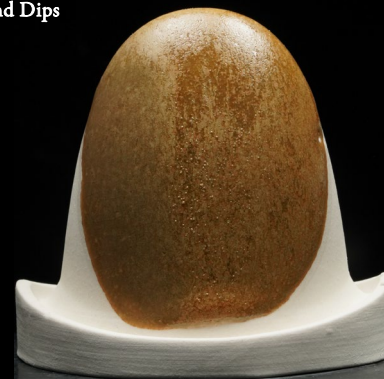
1-3 Second Dip



Original (NS)

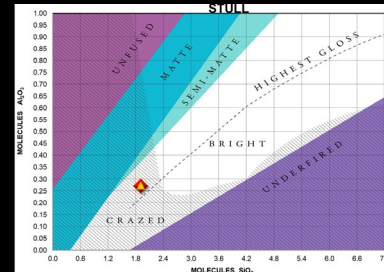
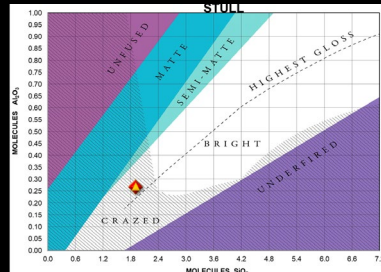
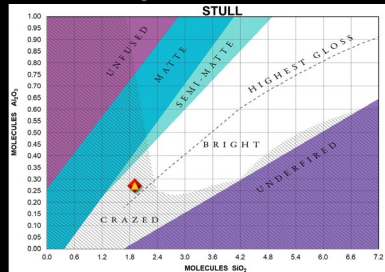


w/Frit 3110



w/Lithium Carb

2-3 Second Dips



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Lab 4-Alkaline Earth-Oxidation



071122-1



071122-43



071122-44

1-3 Second Dip



071122-45



071012-46



071122-47



Original (W)

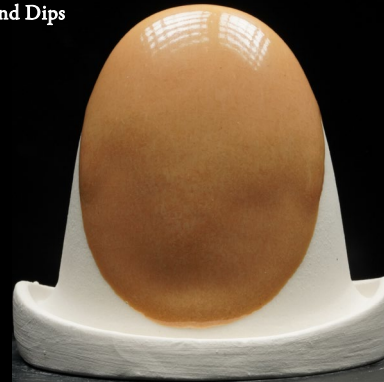


w/Talc



w/Mag Carb

2-3 Second Dips



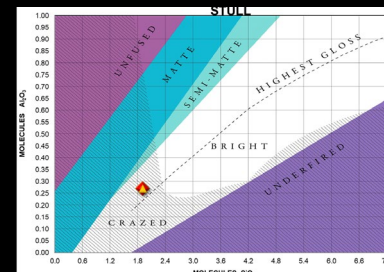
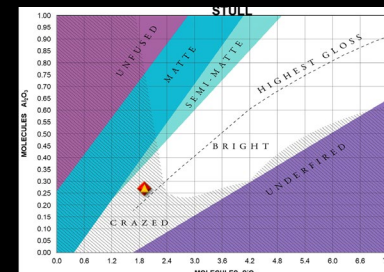
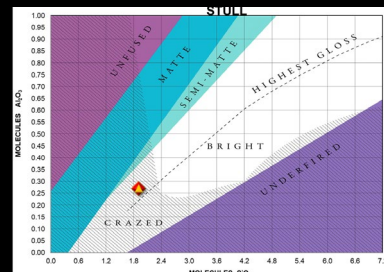
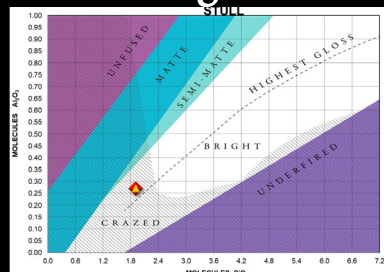
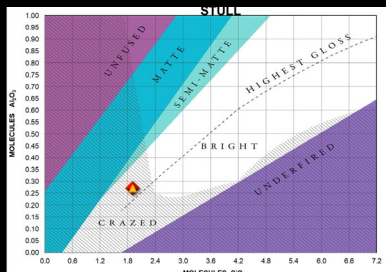
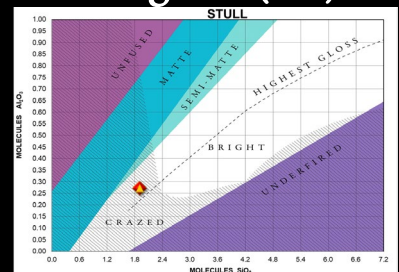
w/Dolomite



w/Wollastonite



w/Strontium Carb

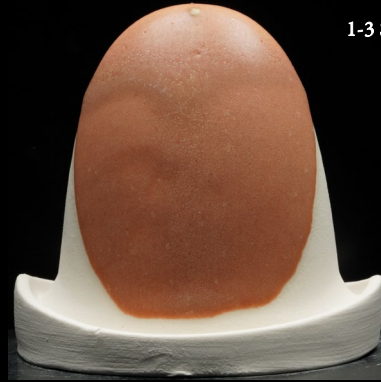


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Lab 4-Alkaline Earth-Oxidation



071122-1



071122-48



071122-49



071122-50

1-3 Second Dip

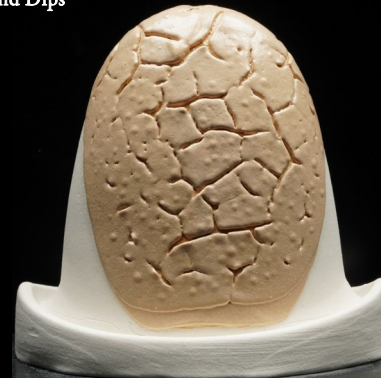
2-3 Second Dips



Original (W)



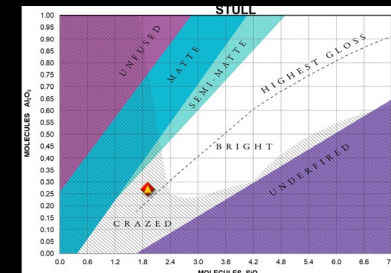
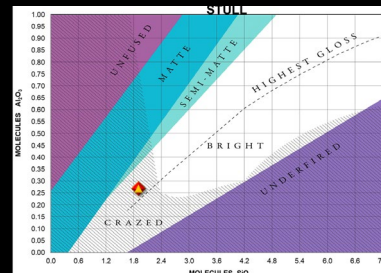
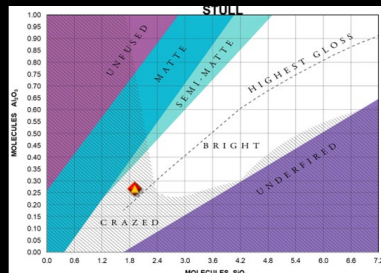
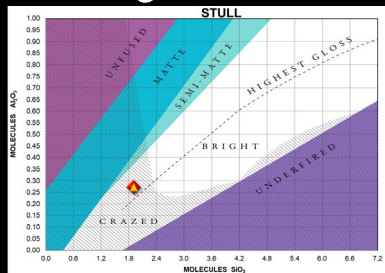
w/Barium Carb



w/Zinc Oxide



w/Bone Ash



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Lab 4-Alkaline Earth-Reduction



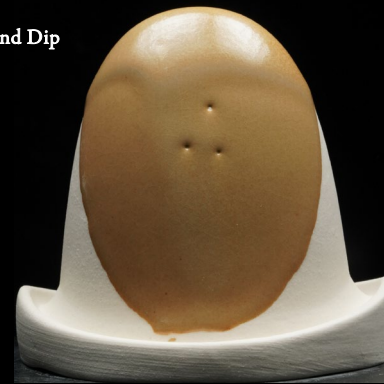
071122-1



071122-43



071122-44



071122-45



071012-46



071122-47

1-3 Second Dip



Original (W)



w/Talc



w/Mag Carb



w/Dolomite

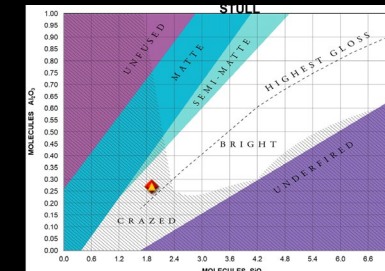
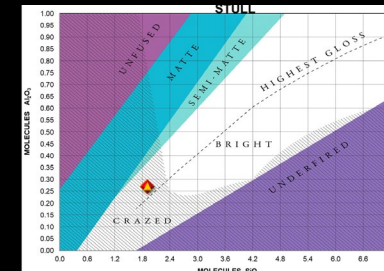
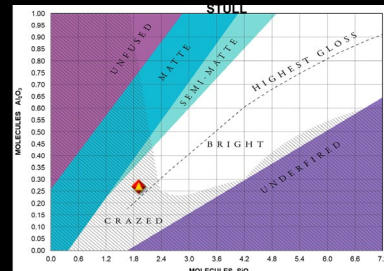
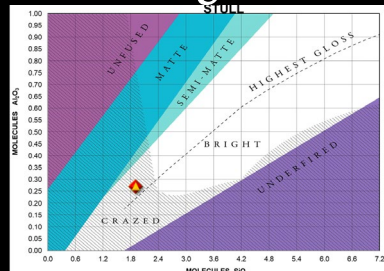
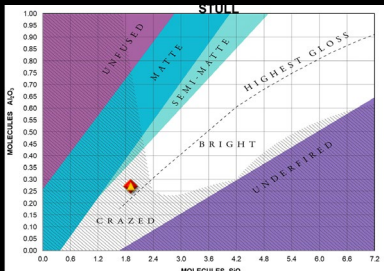
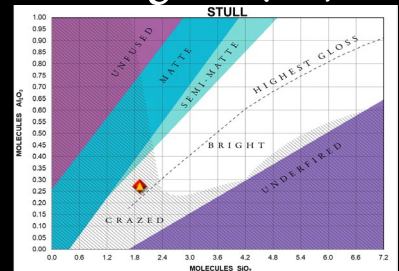


w/Wollastonite



w/Strontium Carb

2-3 Second Dips

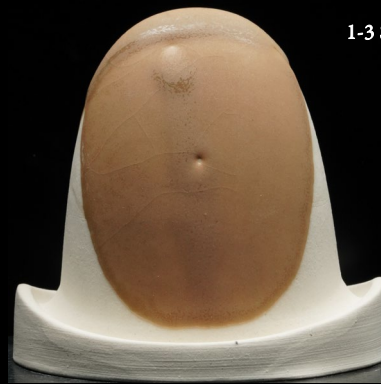


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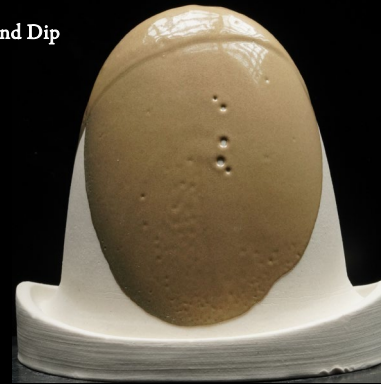
Lab 4-Alkaline Earth-Reduction



071122-1



071122-48



071122-49



071122-50

1-3 Second Dip

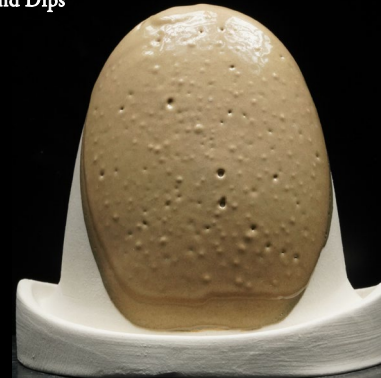
2-3 Second Dips



Original (W)



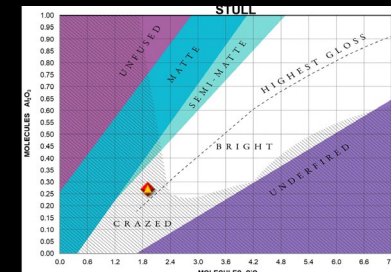
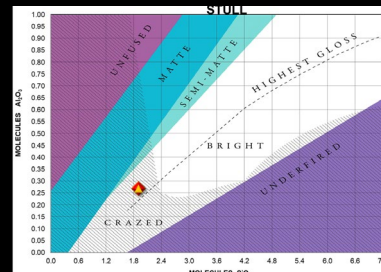
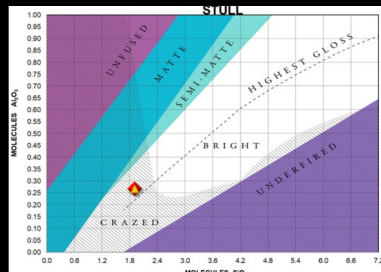
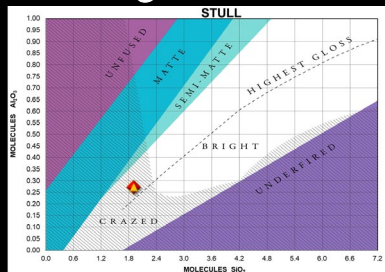
w/Barium Carb



w/Zinc Oxide



w/Bone Ash



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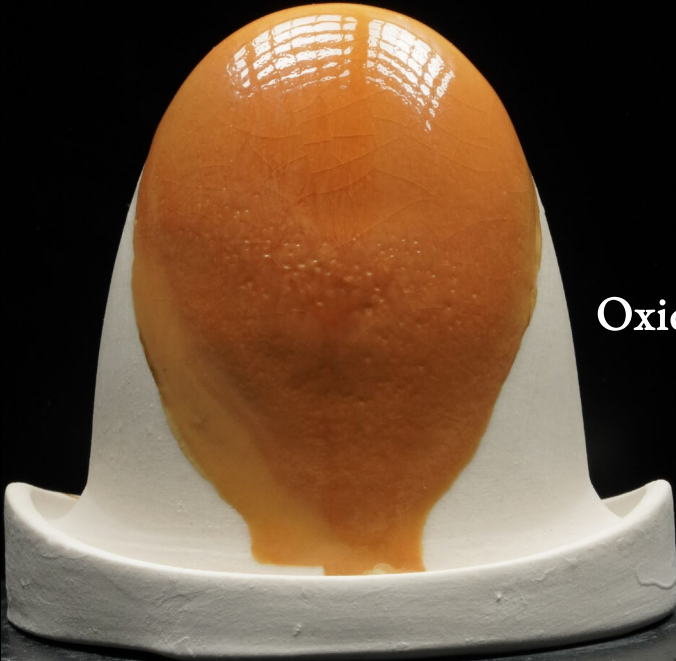
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Tangerine

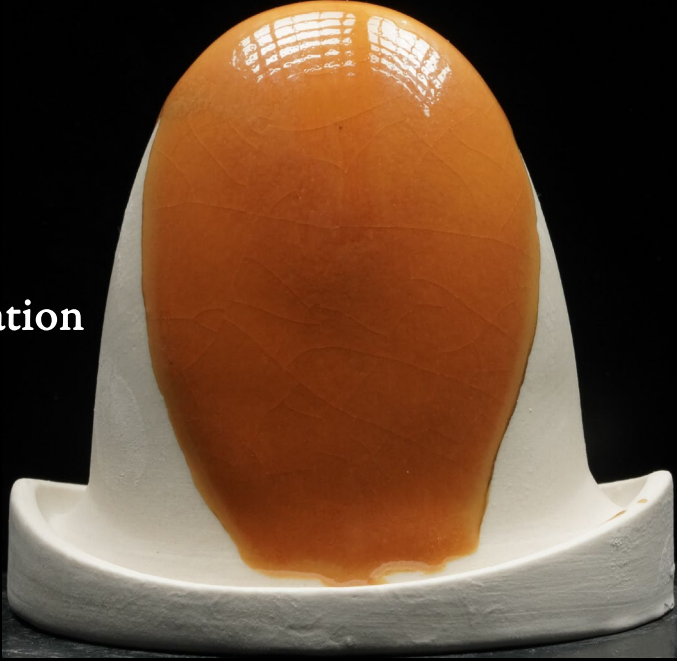
Original

071122-1

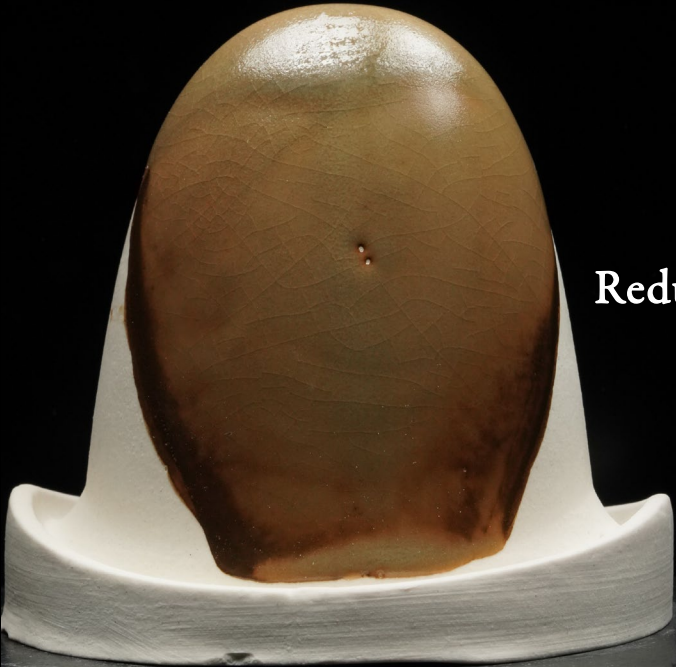
Neph Sy	42.25
Whiting	17.13
Zinc Oxide	11.42
EPK	7.99
Flint	21.20
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



1-3 Second Dip



2-3 Second Dips

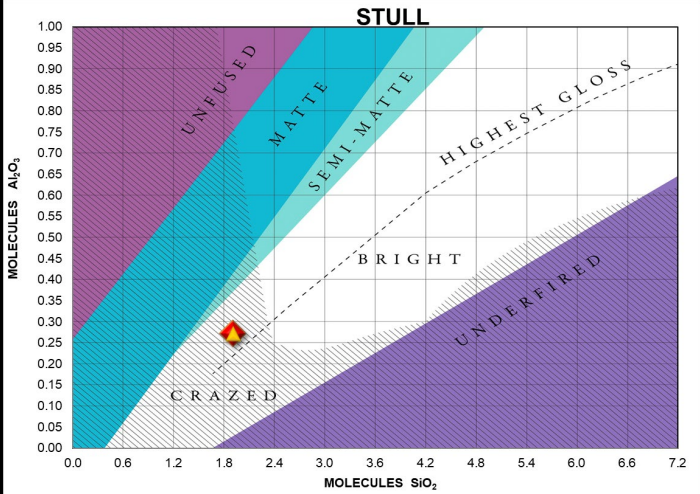


Reduction



Oxidation

SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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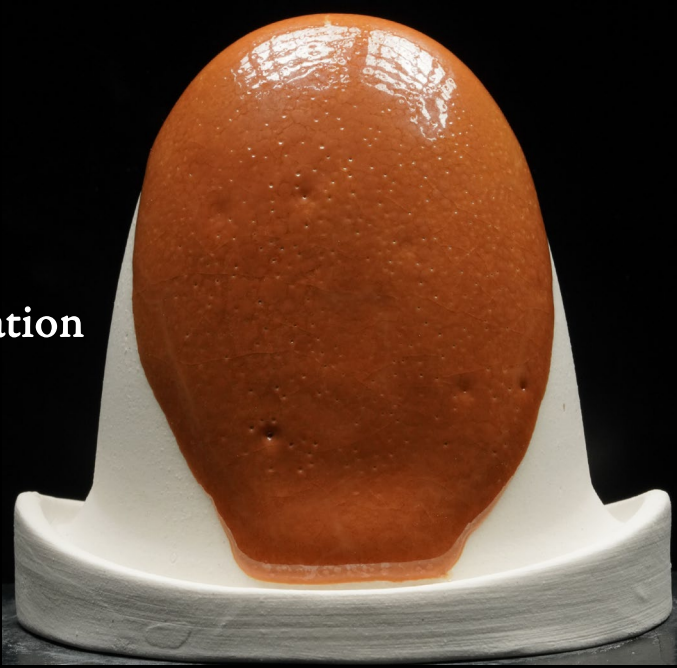
Tangerine

Chemical Match
G200 EU Feldspar
071122-34

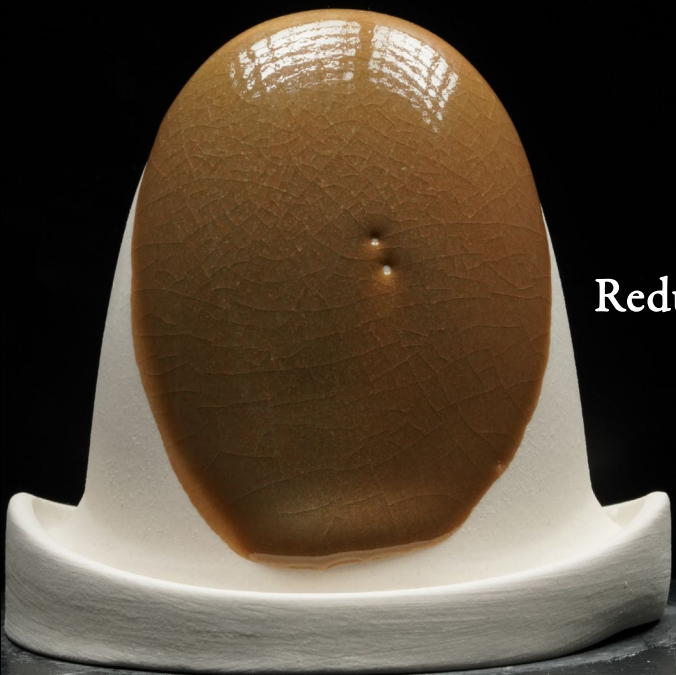
G200 EU	57.04
Zinc Oxide	16.80
Whiting	11.20
EPK	7.20
Flint	7.76
Chrome Oxide	0.20
Red Iron Oxide	1.80
Water	60



1-3 Second Dip



2-3 Second Dips



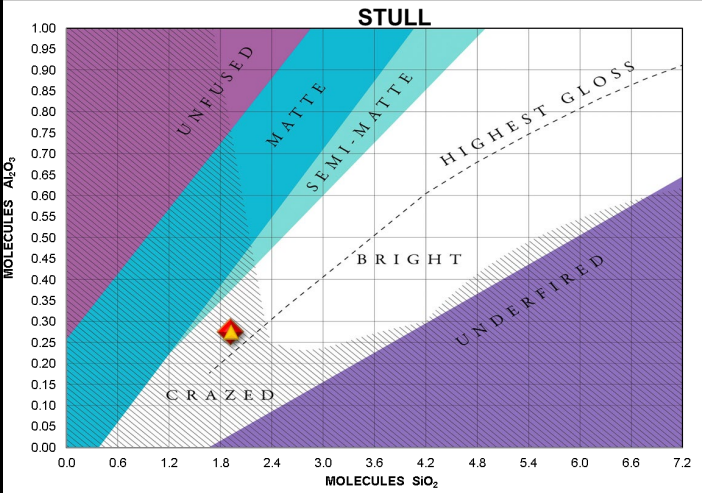
Reduction



Oxidation

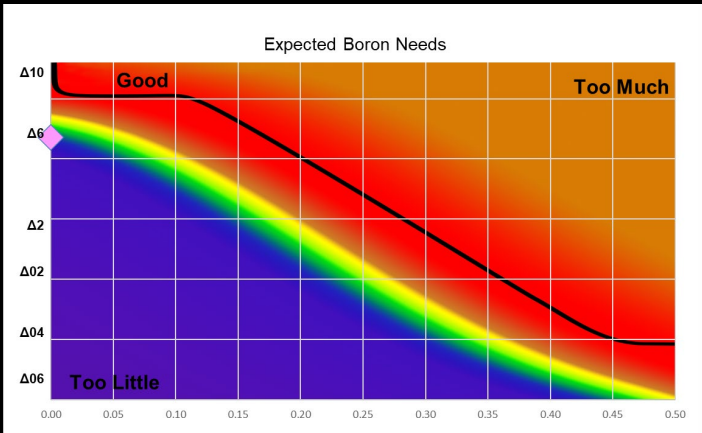
UMF

SiO ₂ :Al ₂ O ₃ Ratio 6.93 :1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.05	K ₂ O 0.17	MgO 0.00	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

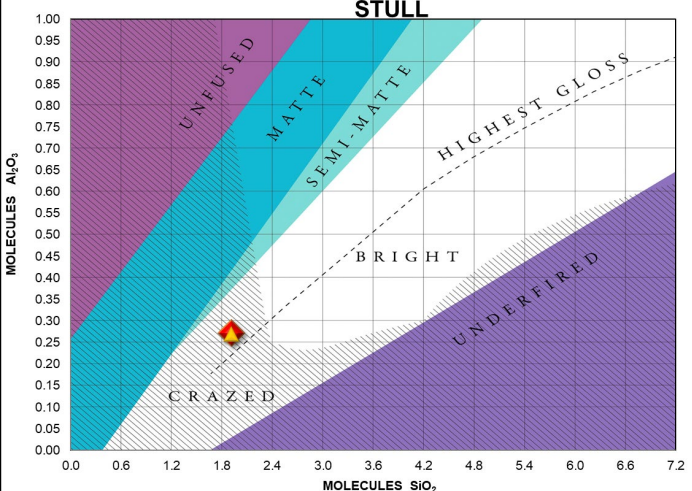
SiO ₂ :Al ₂ O ₃ Ratio 6.93 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.28	Na ₂ O 0.04	K ₂ O 0.15	MgO 0.00	CaO 0.40
B ₂ O ₃	Al ₂ O ₃ 0.28	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

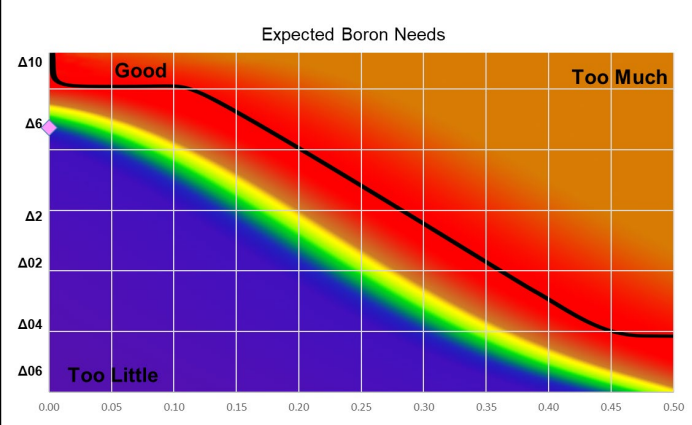
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.07 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.15	K ₂ O 0.06	MgO 0.00	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

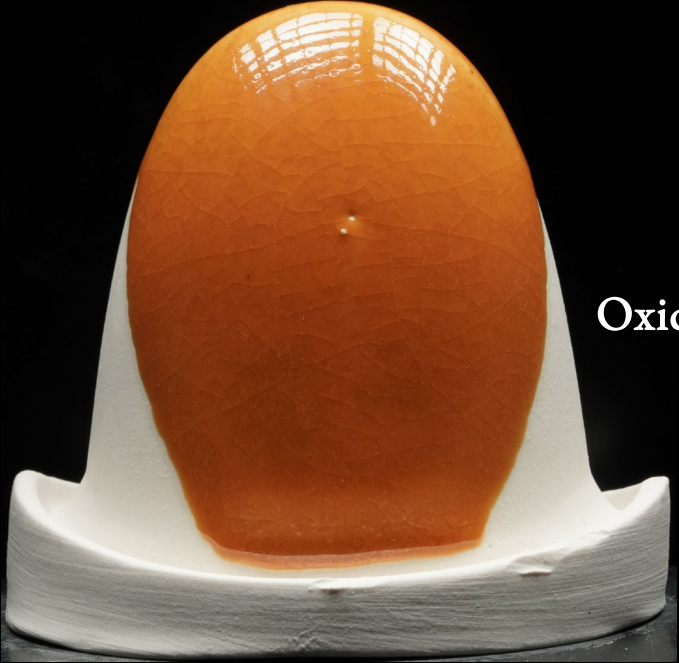
SiO ₂ :Al ₂ O ₃ Ratio 7.07 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.14	K ₂ O 0.06	MgO 0.00	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.08
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Tangerine

Chemical Match
Minspar Feldspar
071122-35

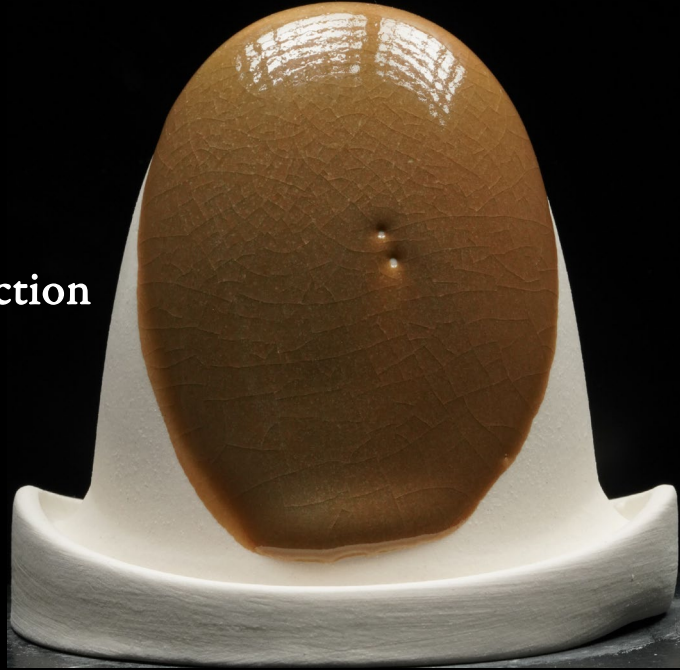
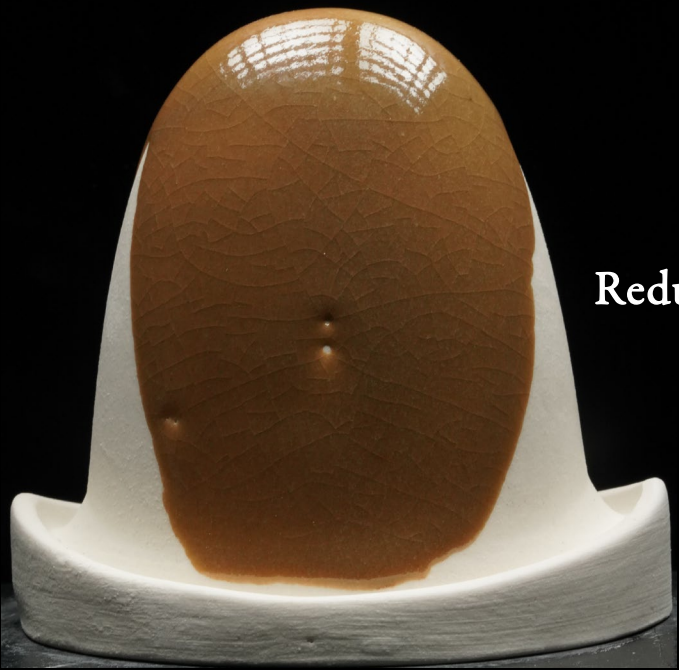
Minspar	61.43
Whiting	16.10
Zinc Oxide	11.75
EPK	1.35
Flint	7.32
Bentonite	2.04
Chrome Oxide	0.21
Red Iron Oxide	1.84
Water	60



1-3 Second Dip



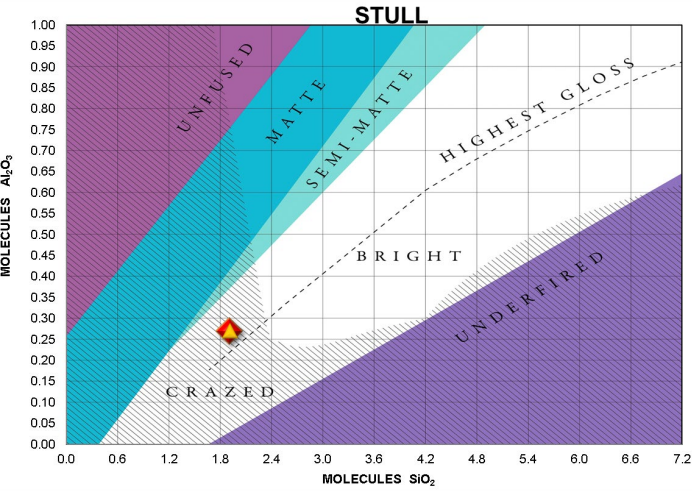
2-3 Second Dips



Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.02 :1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.08	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.05	K ₂ O 0.16	MgO 0.01	CaO 0.42
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

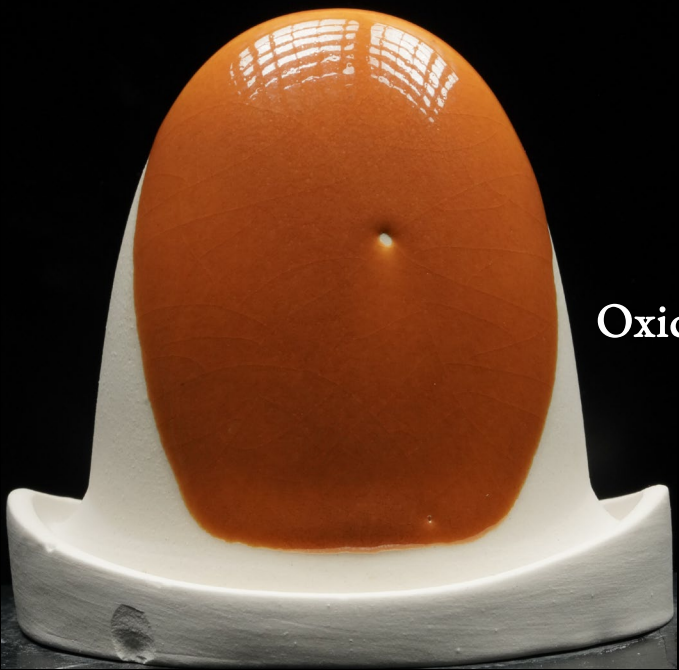
SiO ₂ :Al ₂ O ₃ Ratio 7.02 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.05	K ₂ O 0.15	MgO 0.01	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Tangerine

Chemical Match
Custer Feldspar
071122-36

Custer	58.74
Whiting	16.75
Zinc Oxide	11.28
EPK	5.84
Flint	5.37
Bentonite	2.04
Chrome Oxide	0.20
Red Iron Oxide	1.80
Water	60

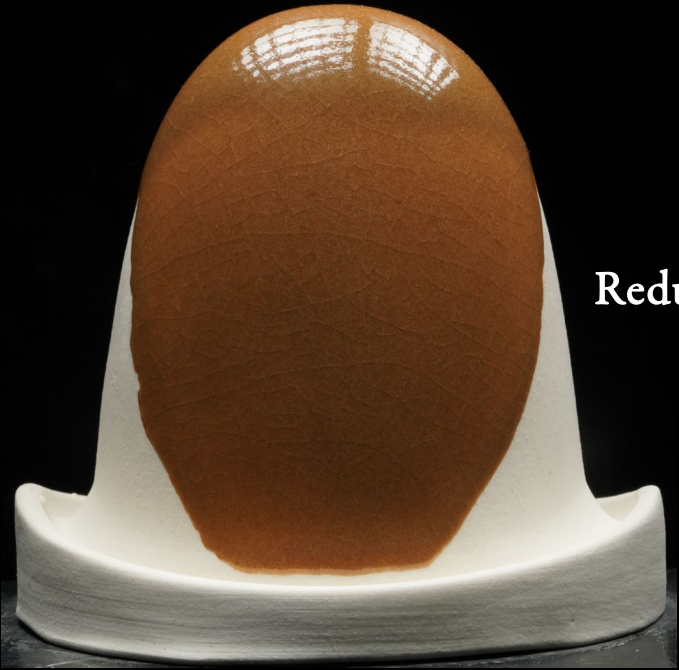


1-3 Second Dip



2-3 Second Dips

Oxidation



Reduction

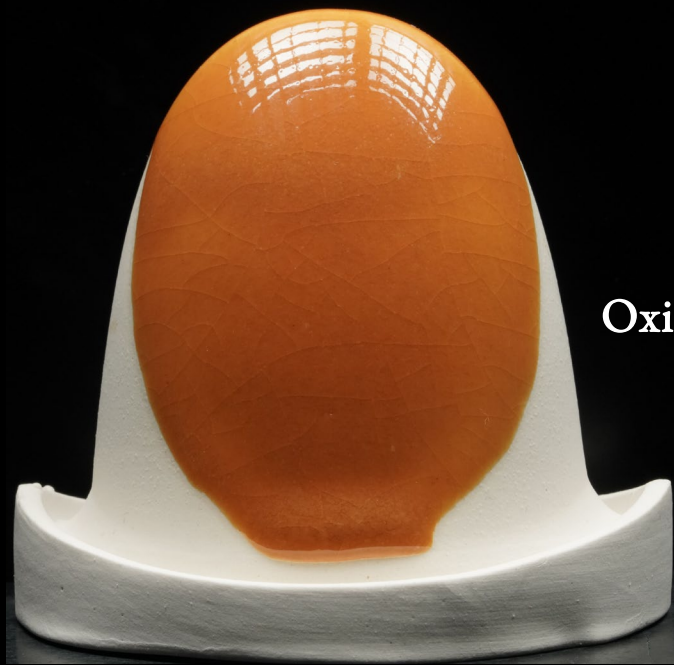


Ceramic
Materials
Workshop

Tangerine

Chemical Match
Mahavir Feldspar
071122-37

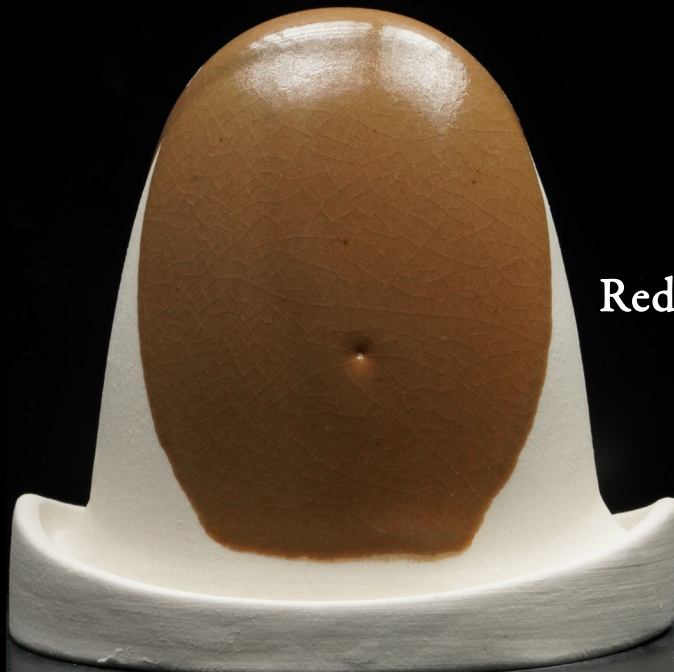
Mahavir	51.11
Whiting	16.97
Zinc Oxide	11.31
EPK	8.59
Flint	12.02
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



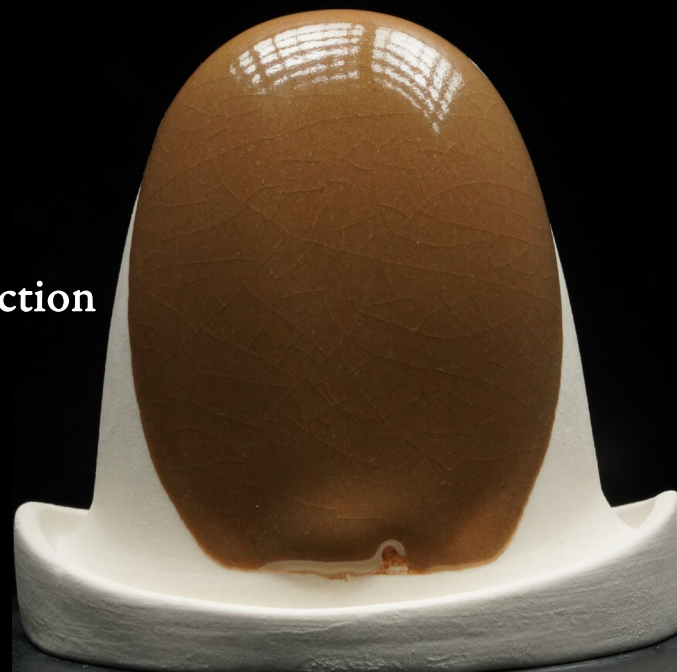
1-3 Second Dip



2-3 Second Dips



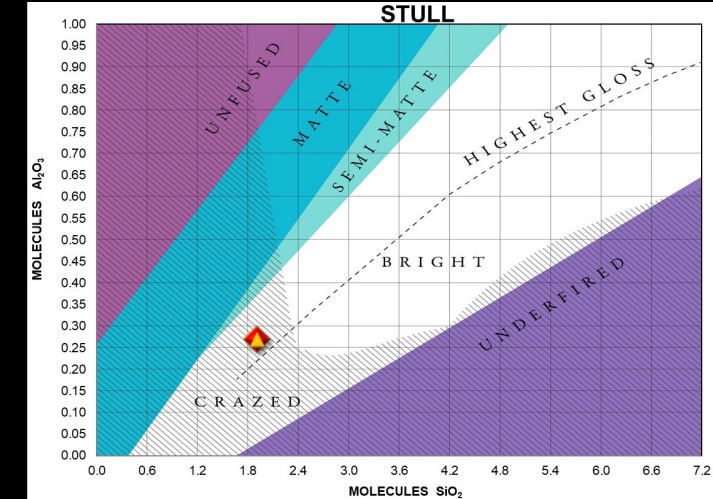
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.06 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.08	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.06	K ₂ O 0.16	MgO 0.01	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.06 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.06	K ₂ O 0.14	MgO 0.01	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

Tangerine

Chemical Match
Spodumene

071122-38

Spodumene	35.36
Whiting	18.07
Zinc Oxide	12.05
EPK	8.43
Flint	26.09
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



Ceramic
Materials
Workshop



1-3 Second Dip



2-3 Second Dips



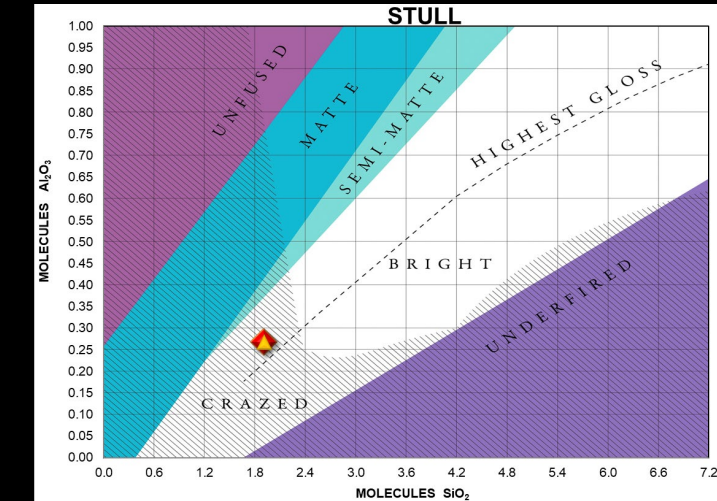
Reduction



Oxidation

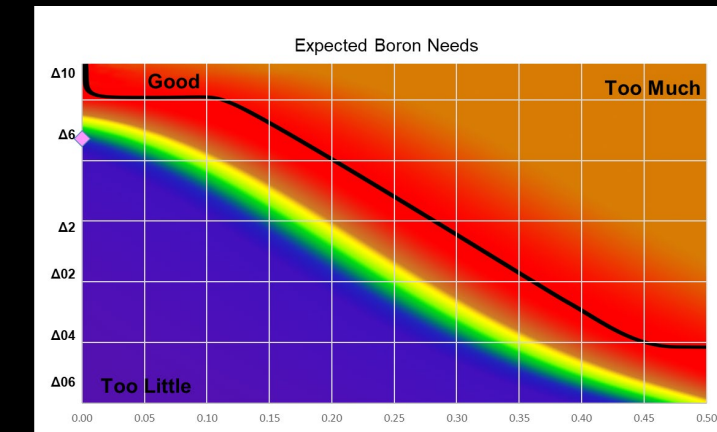
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.12 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.08	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.43
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



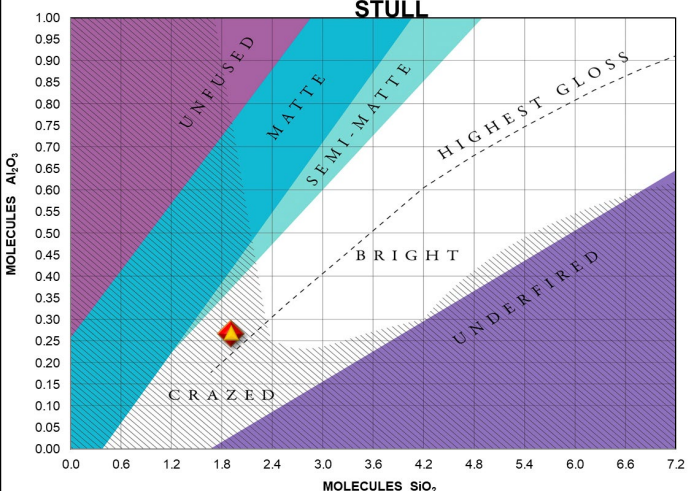
EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.12 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.08
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



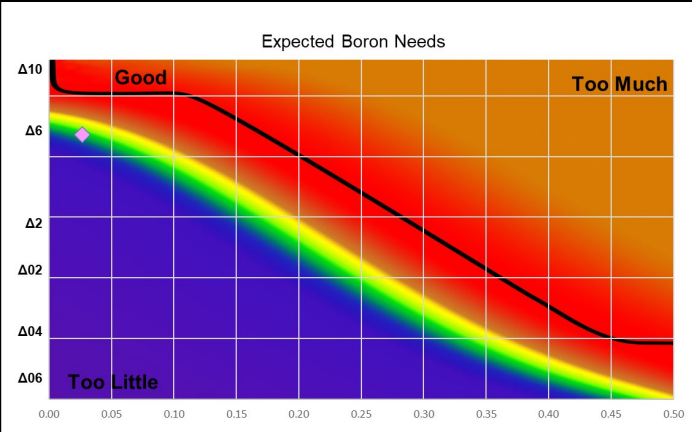
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.07 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.08	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.19	K ₂ O 0.02	MgO 0.00	CaO 0.42
B ₂ O ₃ 0.03	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

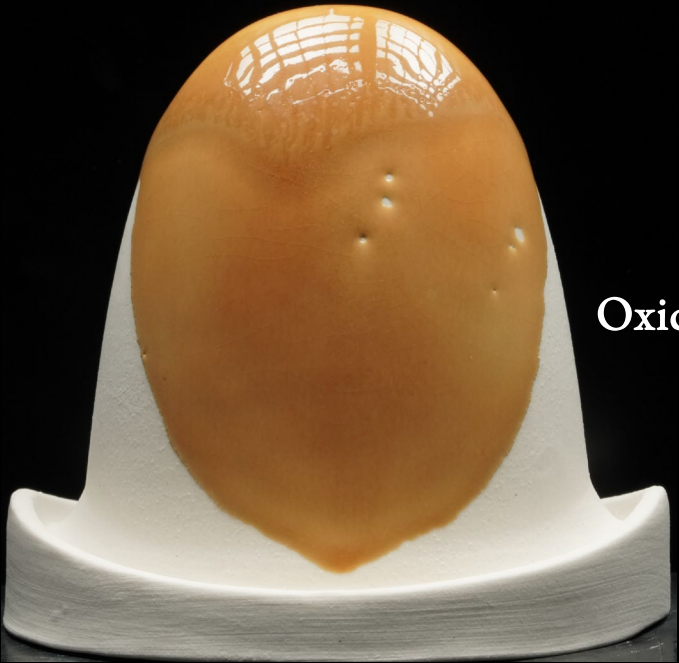
SiO ₂ :Al ₂ O ₃ Ratio 7.07 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.18	K ₂ O 0.02	MgO 0.00	CaO 0.39
B ₂ O ₃ 0.03	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



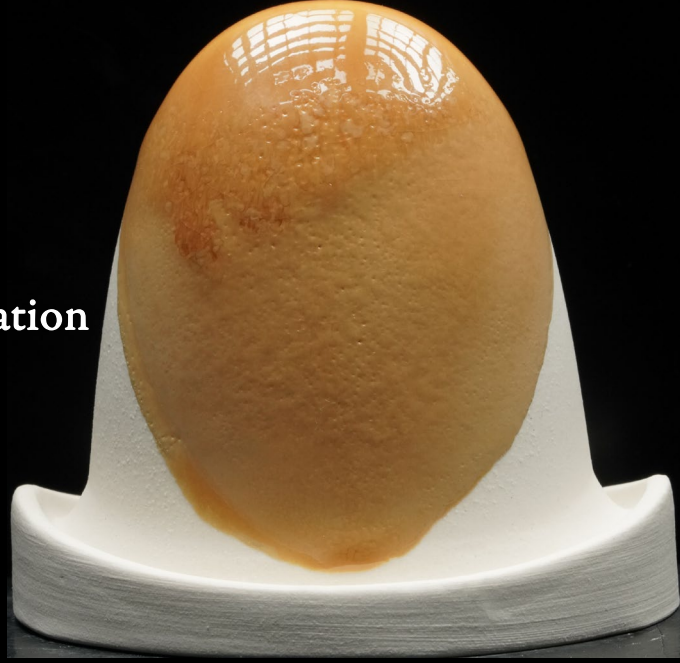
Tangerine

Chemical Match
Frit 3110
071122-40

3110	31.17
Whiting	13.45
Zinc Oxide	11.40
EPK	29.99
Flint	13.98
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60

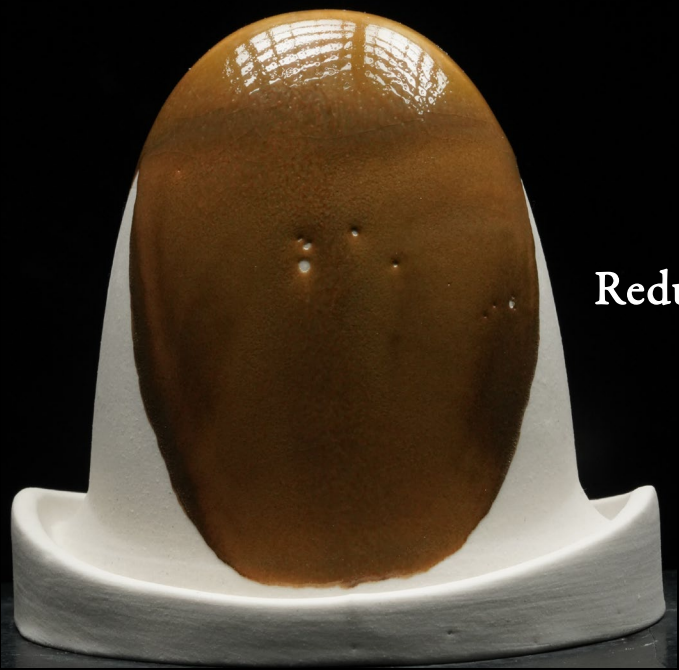


1-3 Second Dip



2-3 Second Dips

Oxidation



1-3 Second Dip



2-3 Second Dips

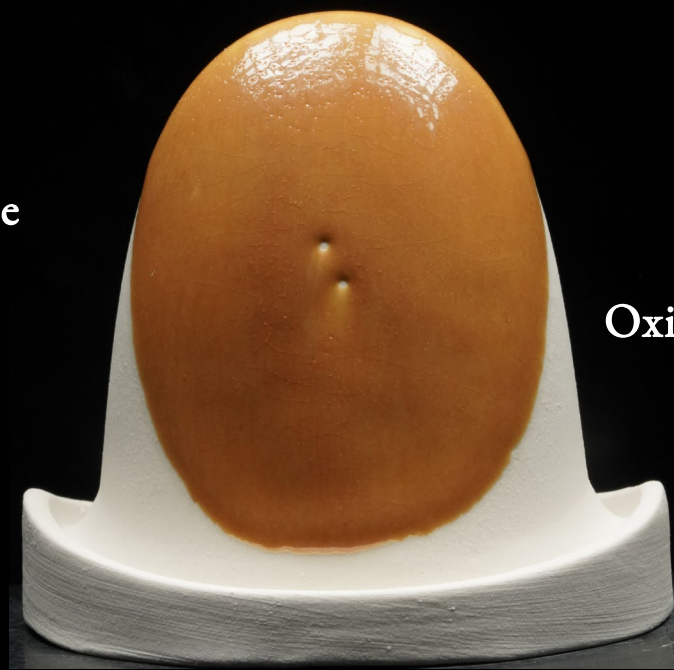
Reduction

Tangerine

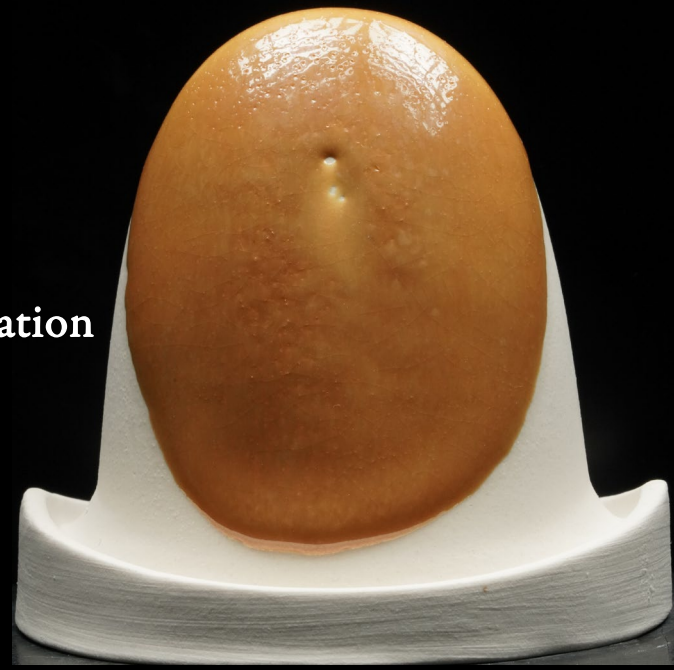
Chemical Match
Lithium Carbonate

071122-42

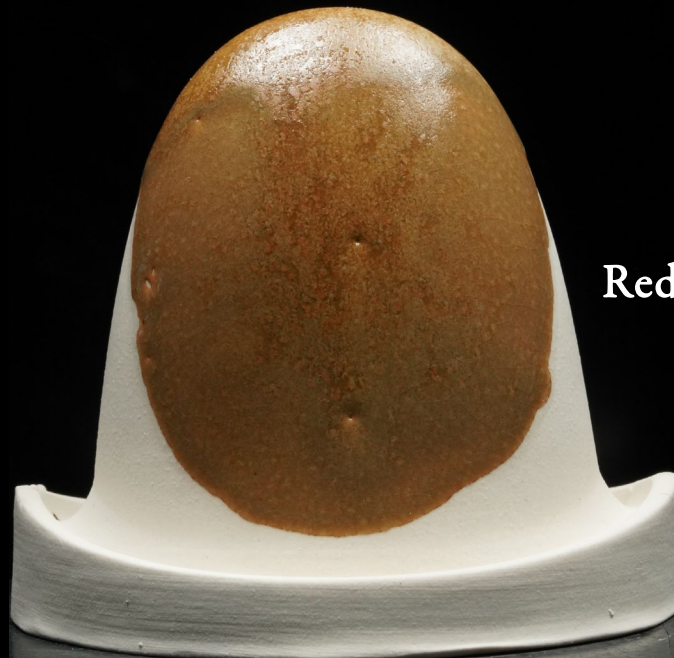
Lithium Carb	6.21
Whiting	16.50
Zinc Oxide	11.00
EPK	32.90
Flint	33.39
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



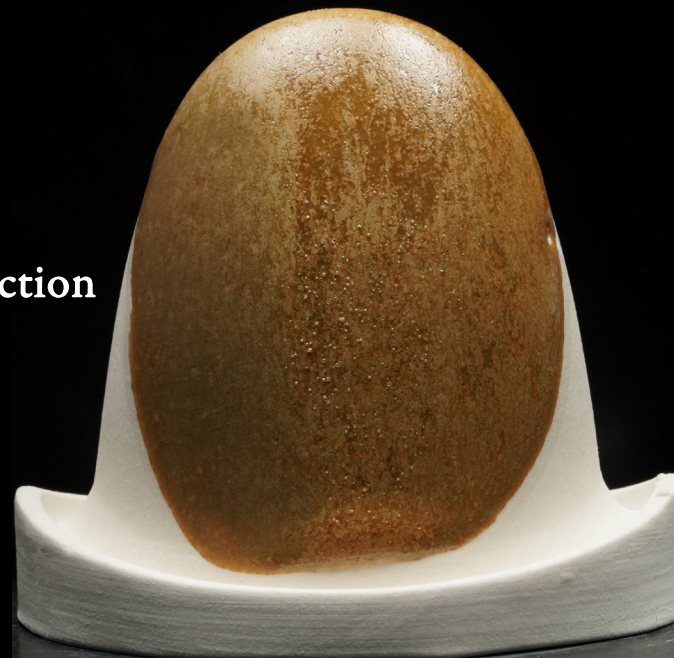
1-3 Second Dip



2-3 Second Dips



Reduction



Oxidation

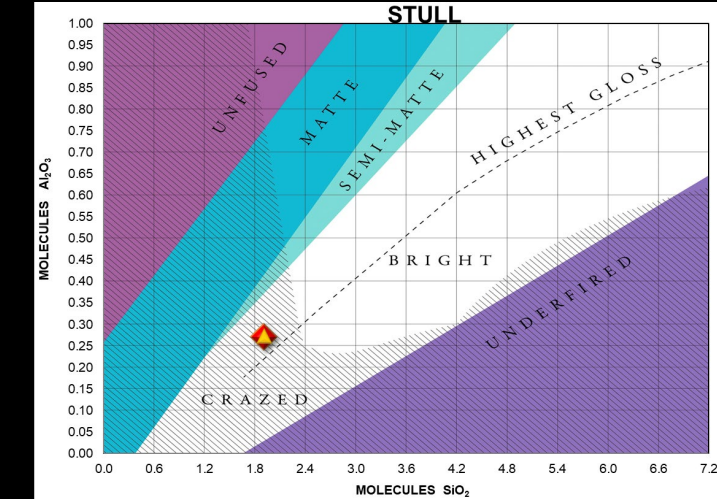


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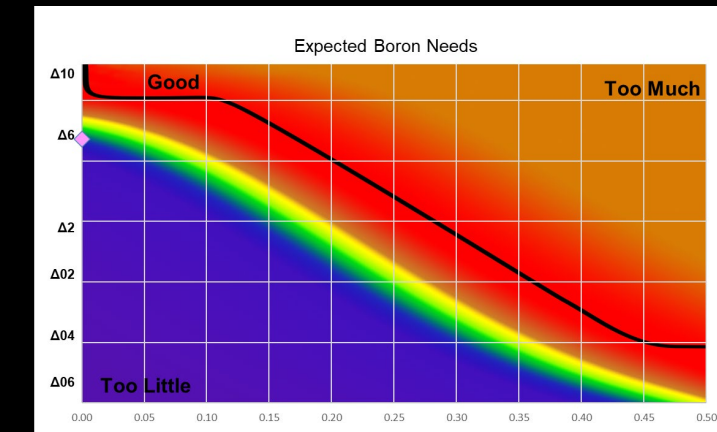
UMF

SiO ₂ :Al ₂ O ₃ Ratio 6.96 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.30	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.42
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 6.96 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.39
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.10
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Tangerine

Chemical Match
Talc

071122-43

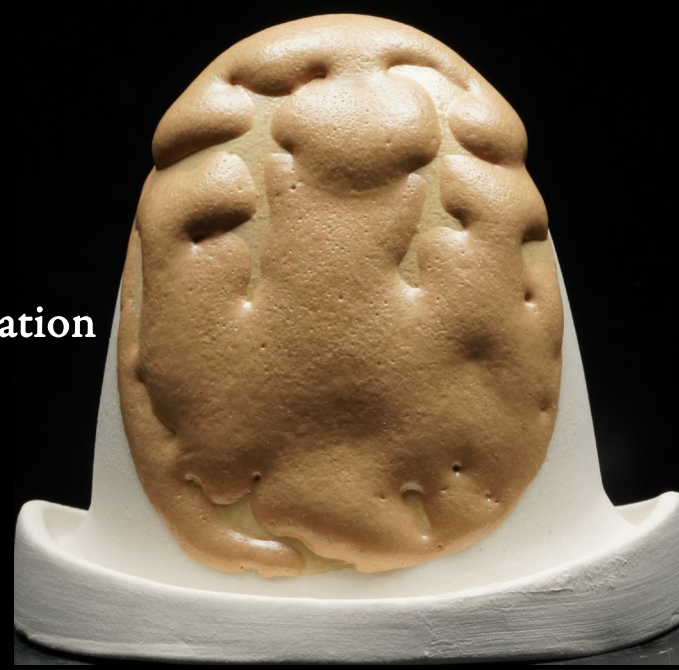
Neph Sy	44.78
Talc	23.19
Zinc Oxide	12.47
EPK	9.10
Flint	10.46
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	65



Ceramic
Materials
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1-3 Second Dip



2-3 Second Dips

Oxidation

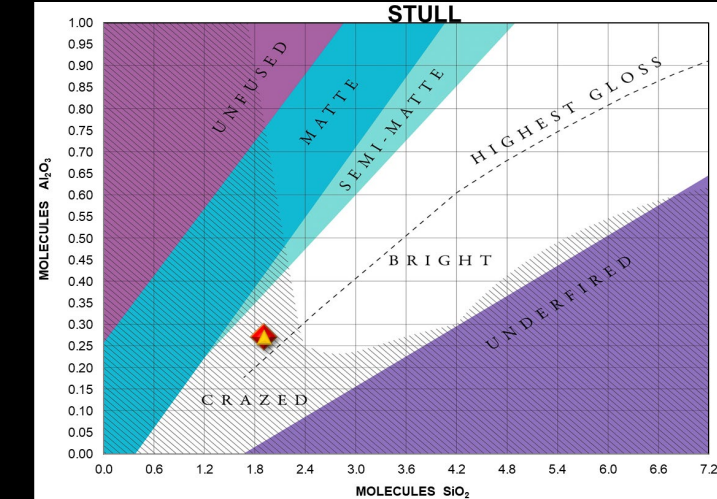


Reduction

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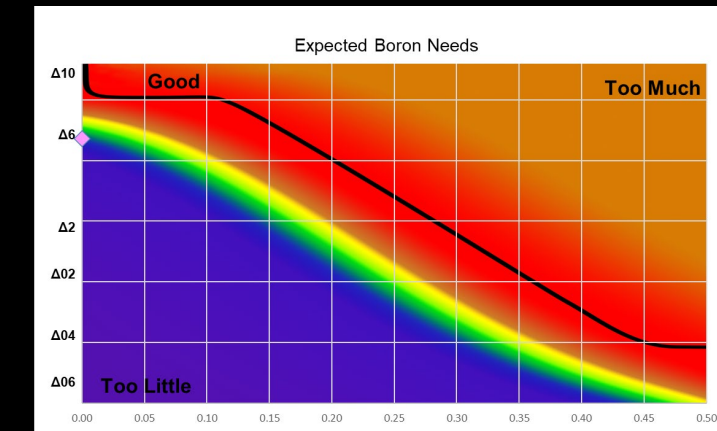
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.01 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.07	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.39	CaO 0.04
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

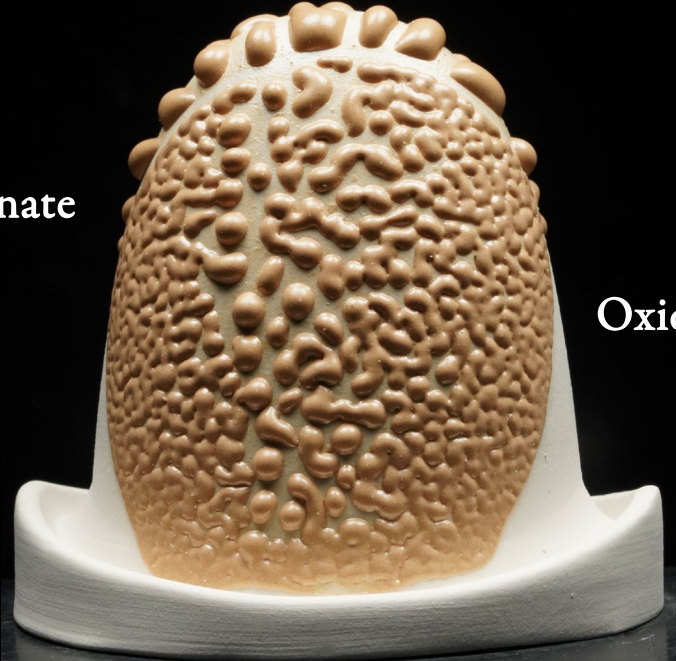
SiO ₂ :Al ₂ O ₃ Ratio 7.01 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.36	CaO 0.04
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



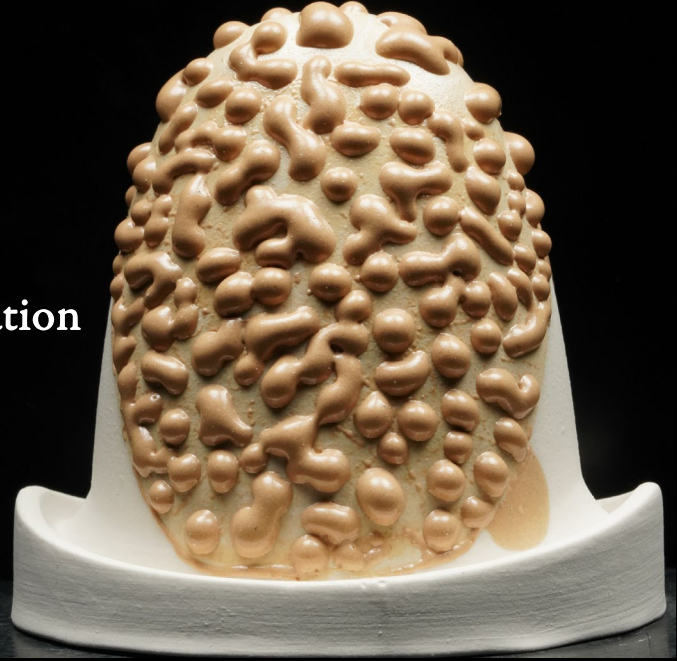
Tangerine

Chemical Match
Magnesium Carbonate
071122-44

Neph Sy	43.43
Mag Carbonate	14.64
Zinc Oxide	11.79
EPK	8.25
Flint	21.89
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	120



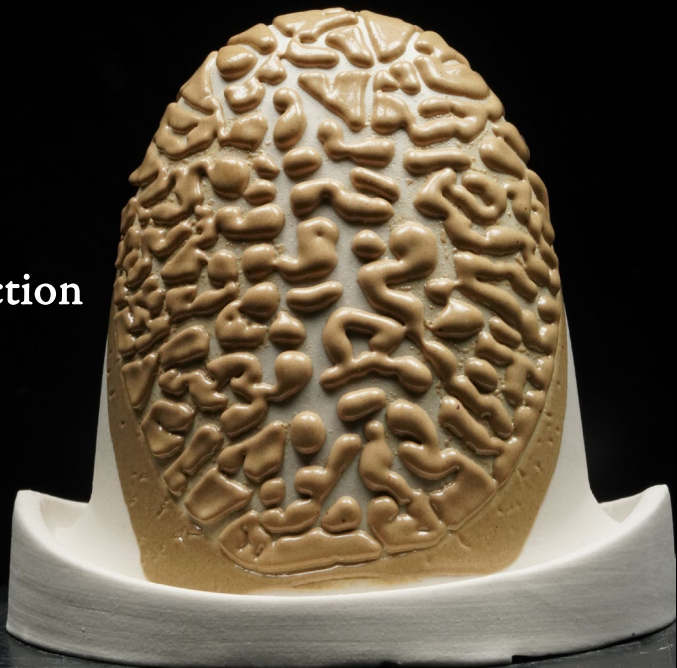
1-3 Second Dip



2-3 Second Dips

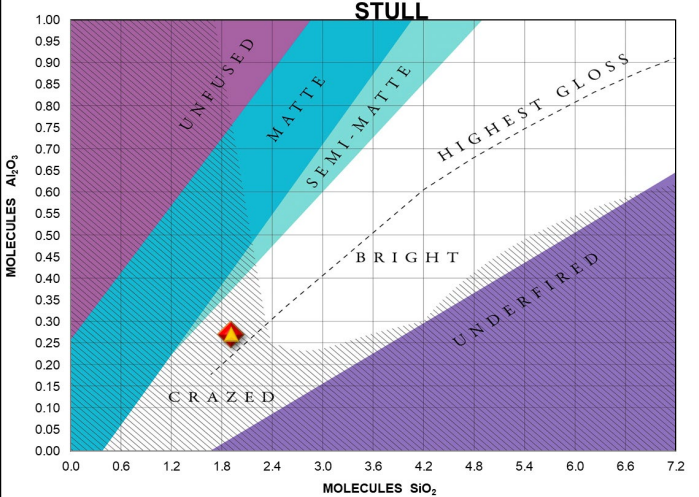


Reduction

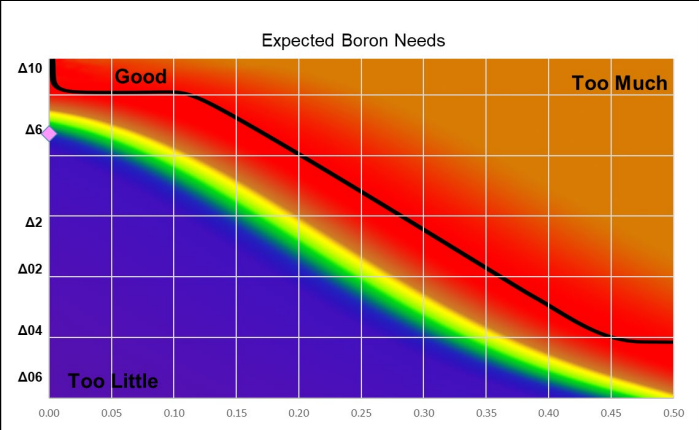


Oxidation

UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		0.22		0.78	
SiO ₂ 2.08	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.42	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.34	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



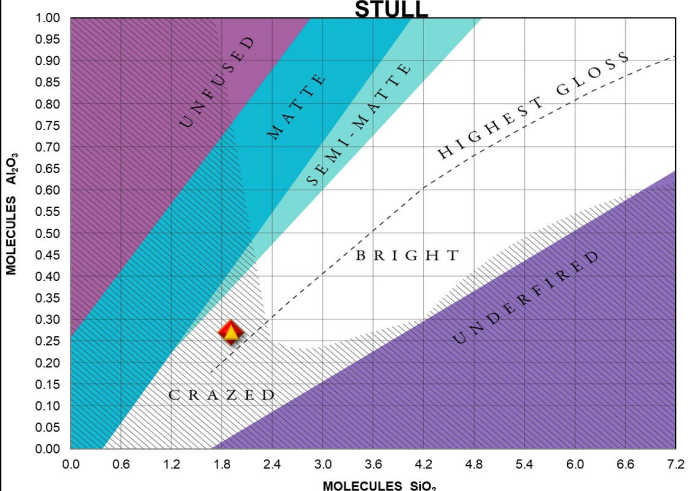
EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		0.20		0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.39	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.08
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

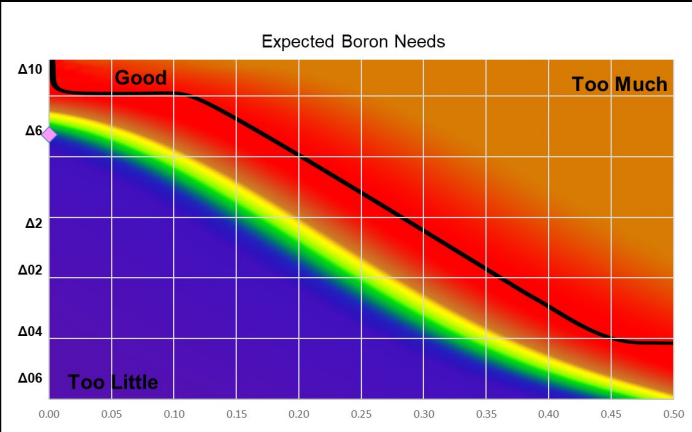
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.20	CaO 0.20
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.03 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.20	CaO 0.20
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



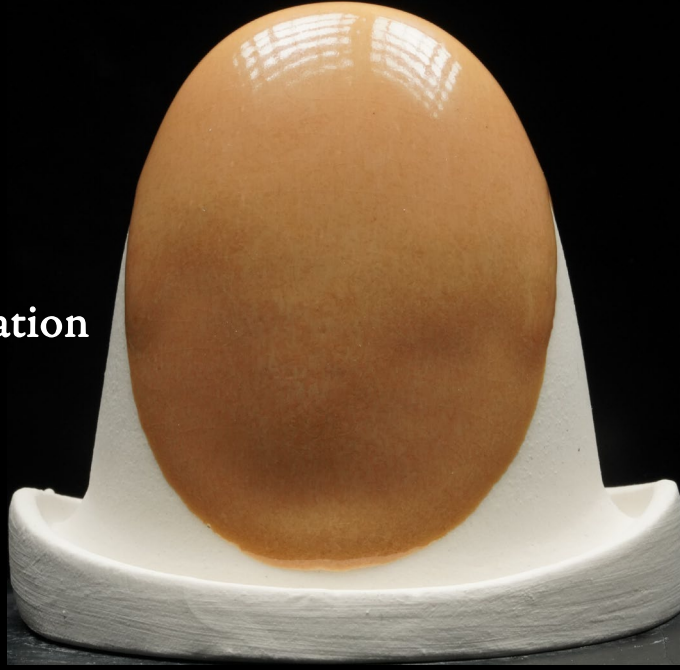
Tangerine

Chemical Match
Dolomite
071122-45

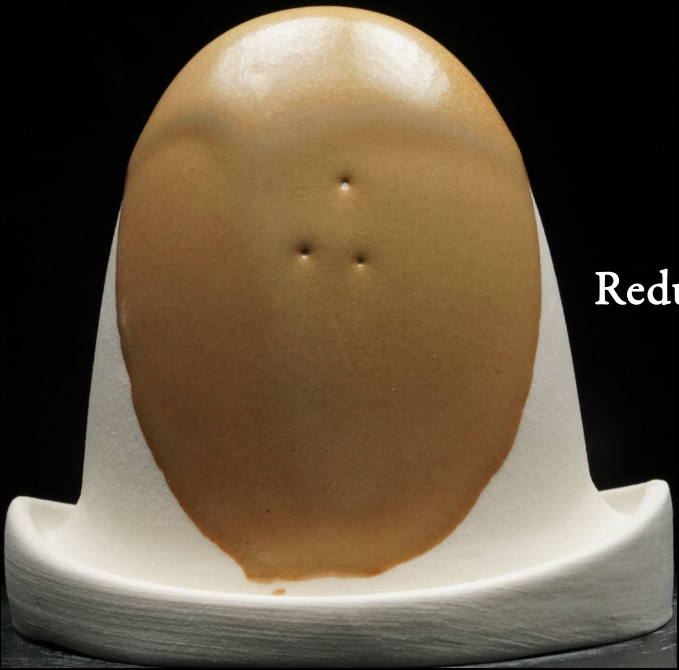
Neph Sy	41.98
Dolomite	16.23
Zinc Oxide	11.56
EPK	8.54
Flint	21.70
Chrome Oxide	0.20
Red Iron Oxide	1.83
Water	60



1-3 Second Dip



2-3 Second Dips



Reduction

Tangerine

Chemical Match
Wollastonite
071122-46

Neph Sy	43.99
Wollastonite	23.23
Zinc Oxide	12.44
EPK	8.50
Flint	11.84
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



1-3 Second Dip



2-3 Second Dips

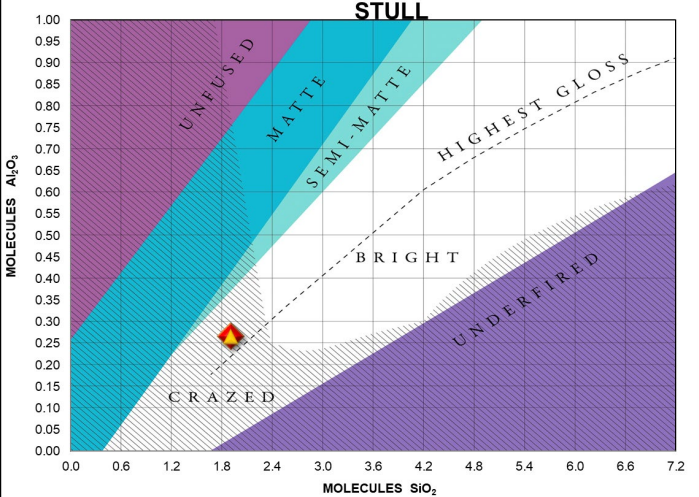


Reduction

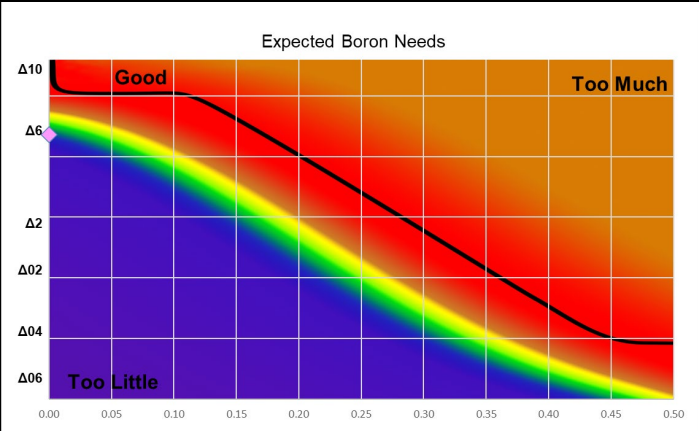


Oxidation

UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.14 : 1		0.21		0.79	
SiO ₂ 2.06	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.02	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.14 : 1		0.20		0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.01	CaO 0.38
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

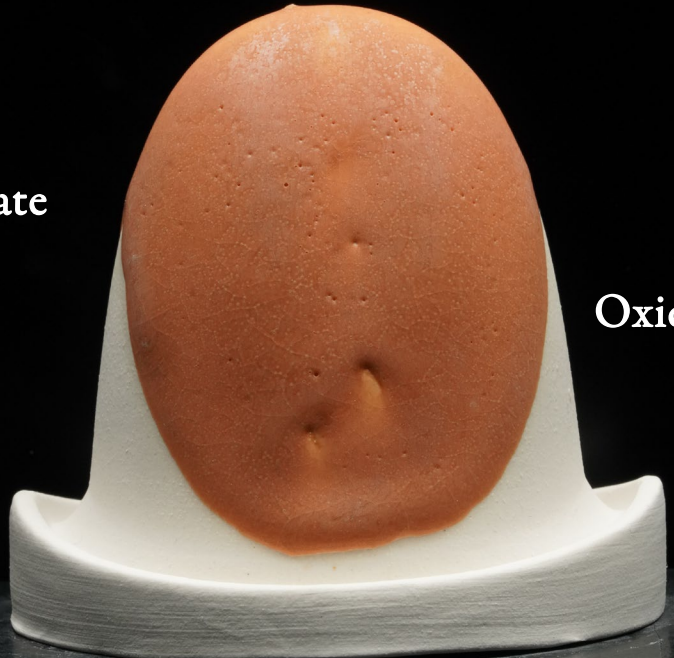


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Workshop

Tangerine

Chemical Match
Strontium Carbonate
071122-47

Neph Sy	39.20
Strontium Carb	22.91
Zinc Oxide	10.75
EPK	7.38
Flint	19.75
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



1-3 Second Dip

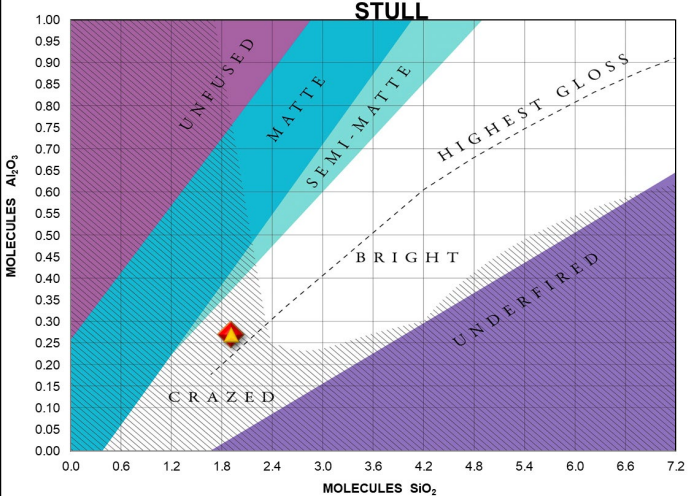


2-3 Second Dips



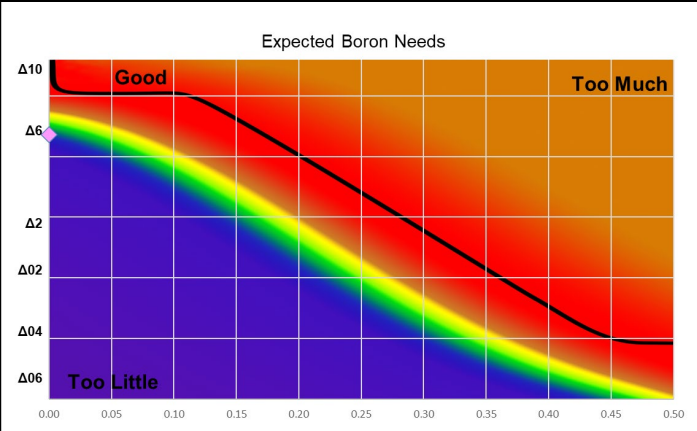
Reduction

SiO ₂ :Al ₂ O ₃ Ratio 7.05 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.10	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO 0.41	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.05 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO 0.38	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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Tangerine

Chemical Match
Barium Carbonate
071122-48

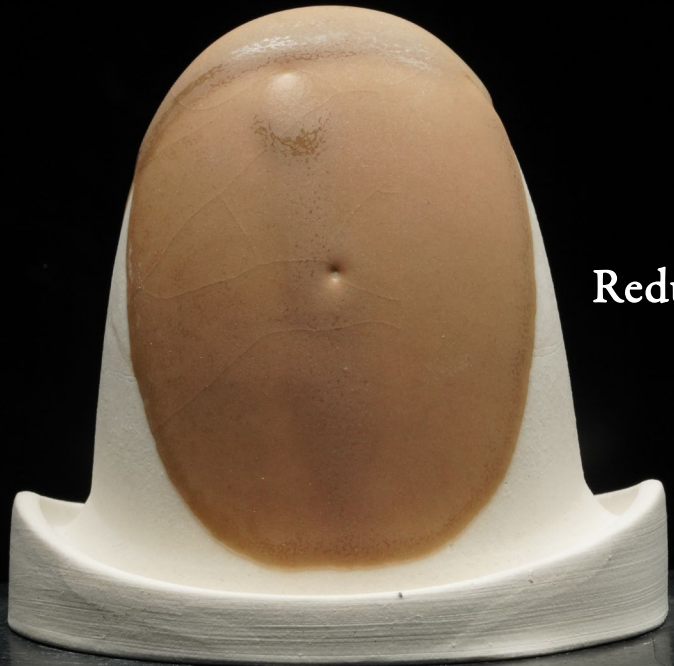
Neph Sy	36.12
Barium Carb	28.51
Zinc Oxide	9.91
EPK	6.78
Flint	18.67
Chrome Oxide	0.21
Red Iron Oxide	1.84
Water	60



1-3 Second Dip



2-3 Second Dips

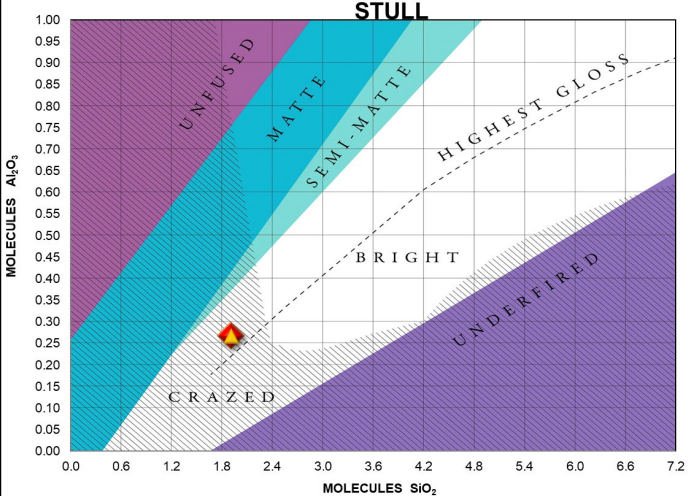


Reduction

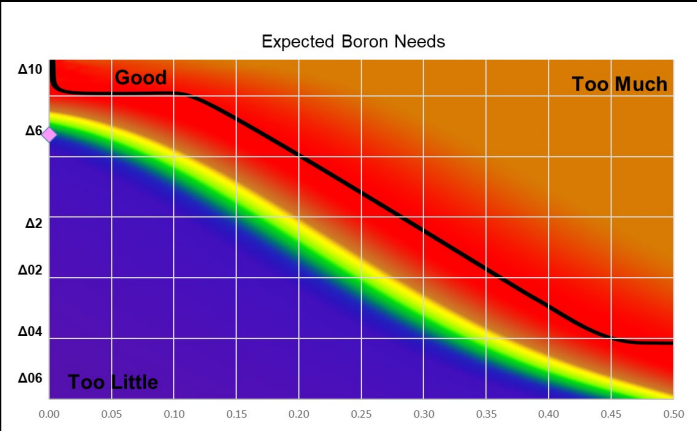


Reduction

UMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.12 : 1		0.22		0.78	
SiO ₂ 2.11	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO 0.42
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.35	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF		Alkali Metals		Alkaline Earths	
SiO ₂ :Al ₂ O ₃ Ratio 7.12 : 1		0.20		0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO 0.38
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.10
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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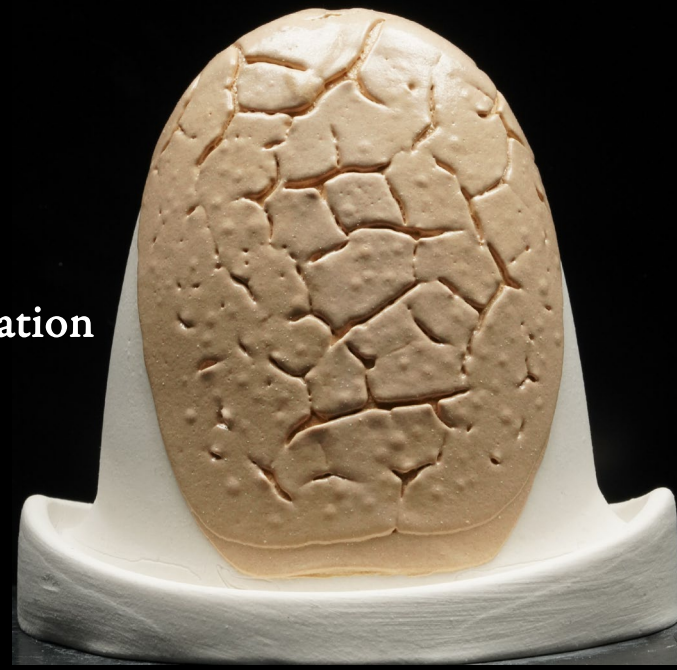
Chemical Match
Zinc Oxide

071122-49

Neph Sy	42.71
Zinc Oxide	15.91
Zinc Oxide	10.61
EPK	8.59
Flint	22.18
Chrome Oxide	0.20
Red Iron Oxide	1.84
Water	60



1-3 Second Dip



2-3 Second Dips



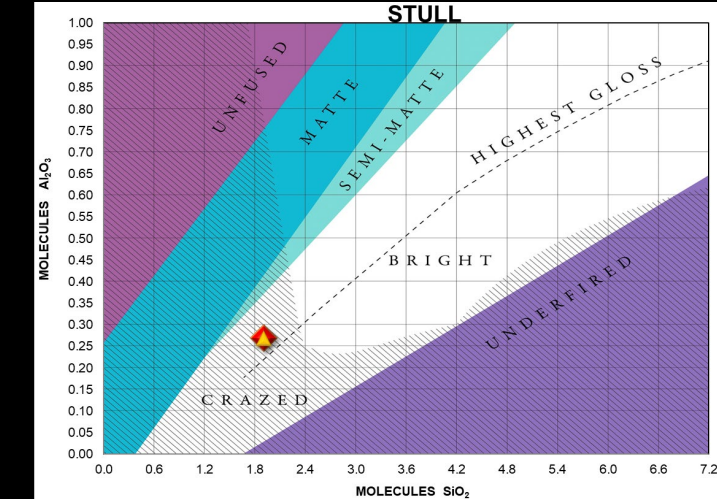
Reduction



Oxidation

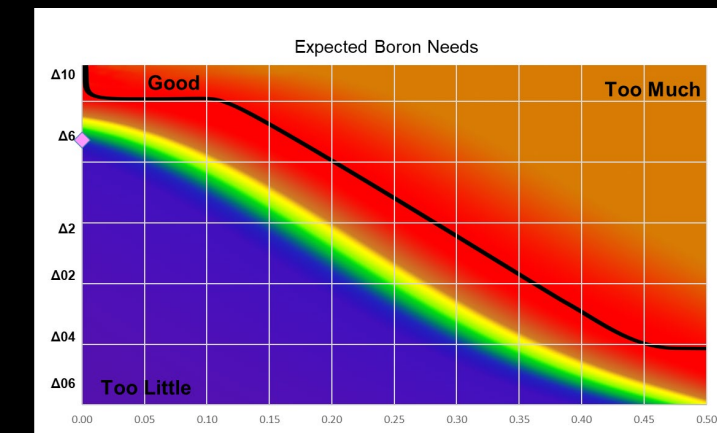
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.06 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.07	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.77	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.06 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.71	FeO 0.08
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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Chemical Match

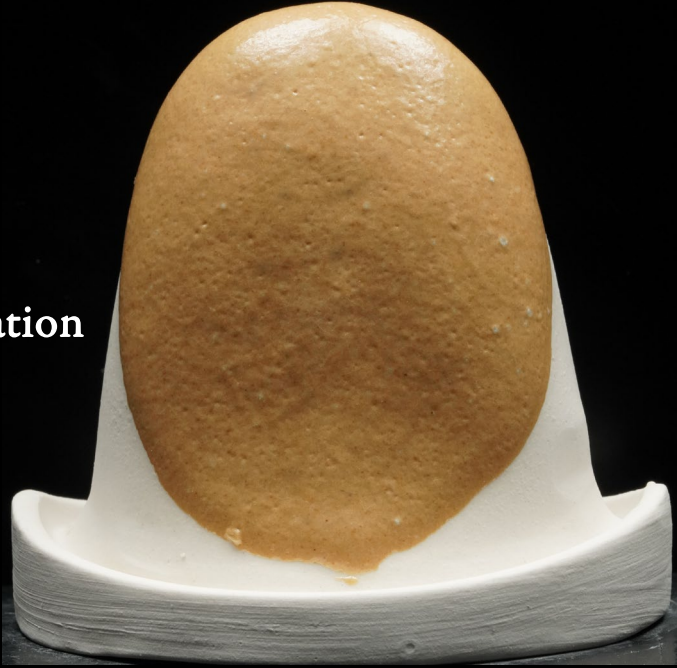
Bone Ash

071122-50

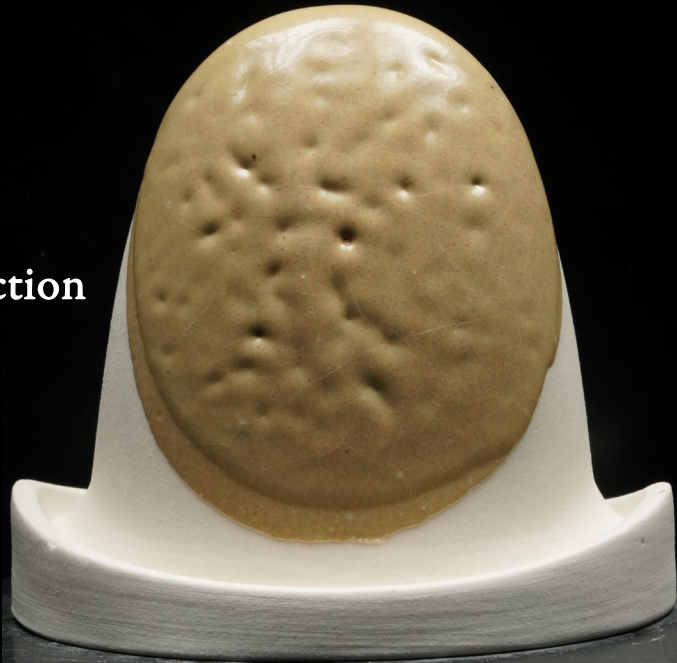
Neph Sy	38.98
Bone Ash	22.00
Zinc Oxide	11.04
EPK	7.88
Flint	20.10
Chrome Oxide	0.21
Red Iron Oxide	1.84
Water	75



1-3 Second Dip

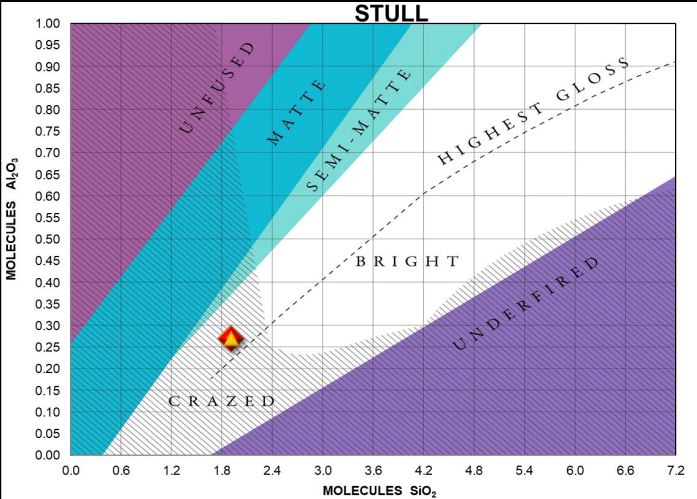


2-3 Second Dips



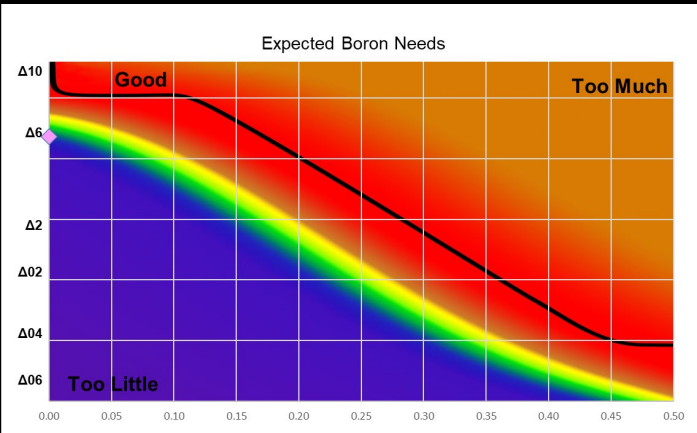
Reduction

SiO ₂ :Al ₂ O ₃ Ratio 7.04 : 1		Alkali Metals 0.22		Alkaline Earths 0.78	
SiO ₂ 2.10	Collective "Al ₂ O ₃ " 0.30	Na ₂ O 0.17	K ₂ O 0.05	MgO 0.00	CaO 0.42
B ₂ O ₃	Al ₂ O ₃ 0.30	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.36	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅ 0.23		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 7.04 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.16	K ₂ O 0.04	MgO 0.00	CaO 0.38
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.32	FeO 0.09
Cr ₂ O ₃ 0.00	ZrO ₂	P ₂ O ₅ 0.21		MnO ₂	CoO



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