

Birdie's Nest- $\Delta 6$

Lab 4-Back to the Flux Capacity

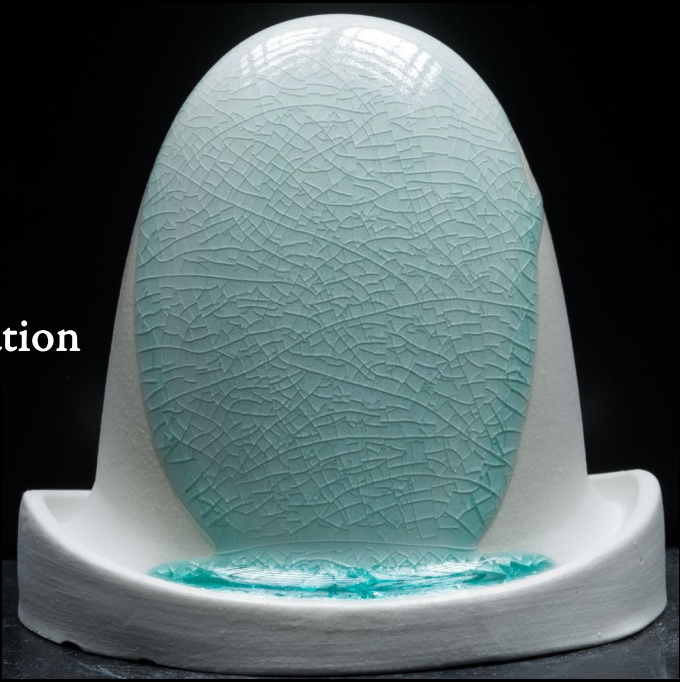
Birdie's Nest

Original
070722-1

Neph Sy	24.36
Dolomite	20.28
EPK	5.92
Flint	17.84
3134	29.59
Bentonite	2.01
Copper Carbonate	0.50
Water	60



1-3 Second Dip



2-3 Second Dips

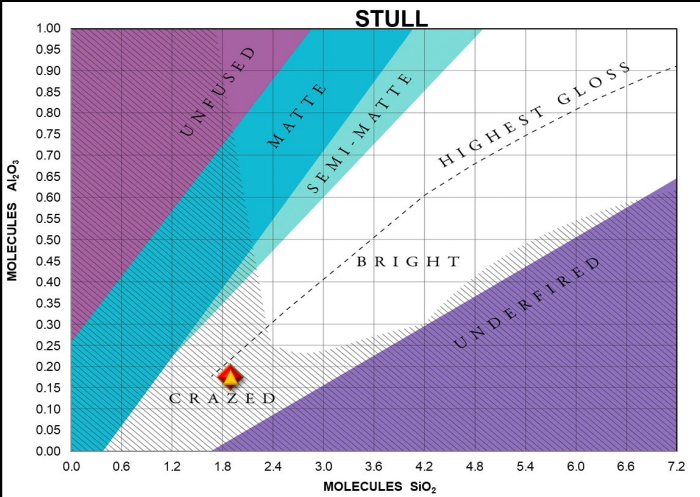


Reduction

Oxidation

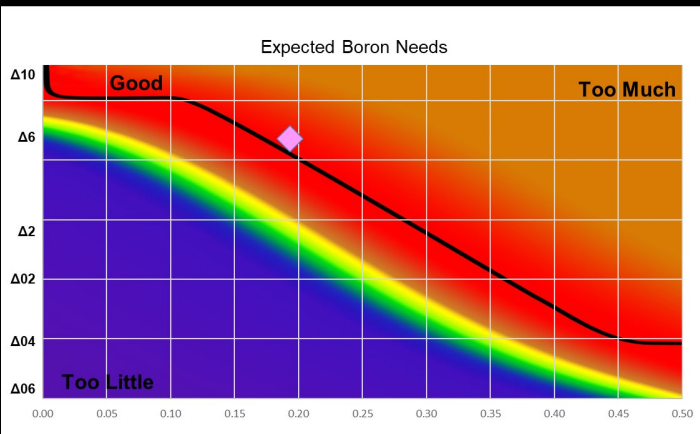
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.78 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.78 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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



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Lab 4-Alkali Metals-Oxidation



070722-1



070722-34



070722-35



070722-36



070722-37



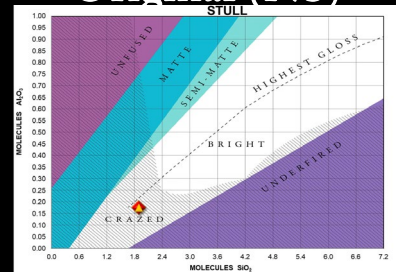
070722-38

1-3 Second Dip

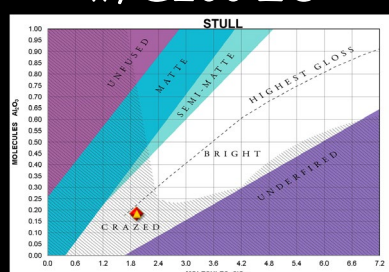
2-3 Second Dips



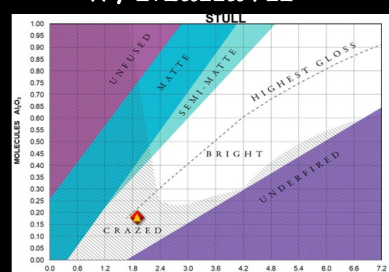
Original (NS)



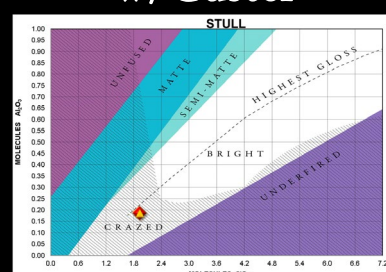
w/G200 EU



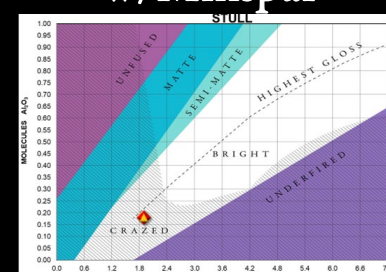
w/Mahavir



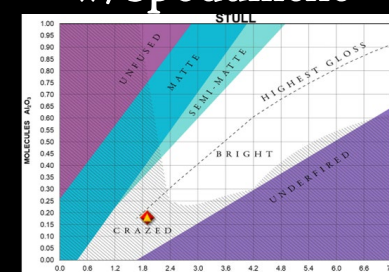
w/Custer



w/Minspar



w/Spodumene



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Lab 4-Alkali Metals-Oxidation



070722-1



070722-40



070722-42

1-3 Second Dip

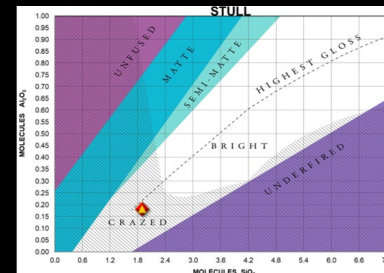
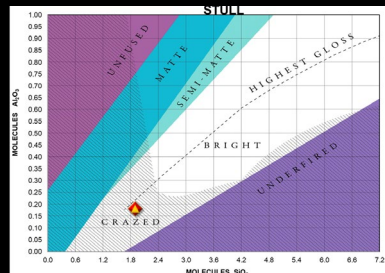
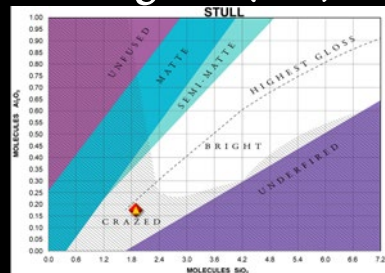


2-3 Second Dips

Original (NS)

w/Frit 3110

w/Lithium Carbonate



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Lab 4-Alkali Metals-Reduction



070722-1



070722-34



070722-35

1-3 Second Dip



070722-36



070722-37



070722-38



Original (NS)



w/G200 EU



w/Mahavir

2-3 Second Dips



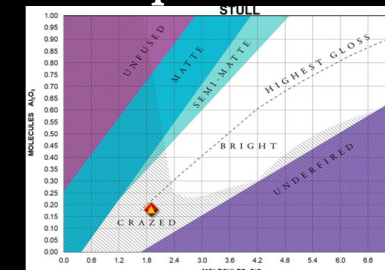
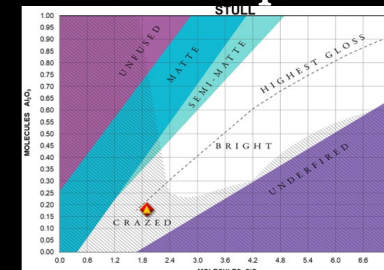
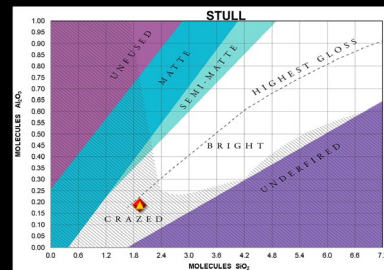
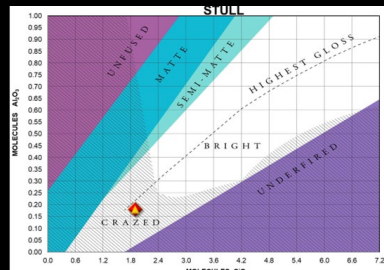
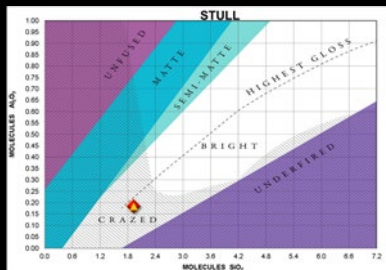
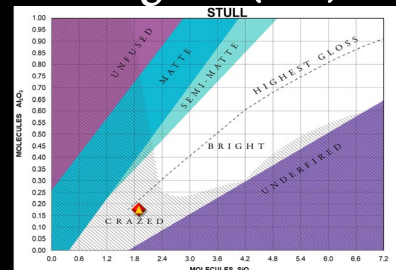
w/Custer



w/Minspar



w/Spodumene



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Lab 4-Alkali Metals-Reduction



070722-1



070722-40



070722-42

1-3 Second Dip



Original (NS)

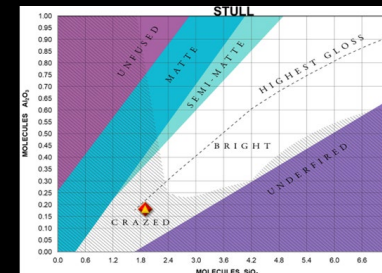
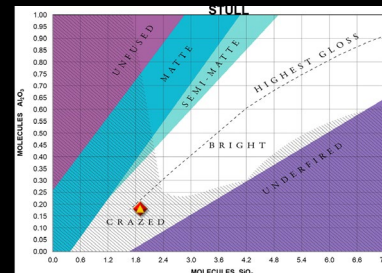
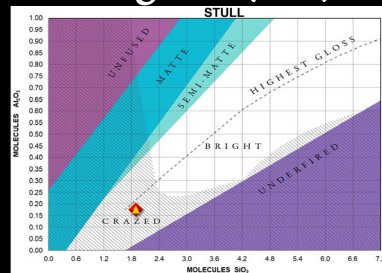


w/Frit 3110



w/Lithium Carbonate

2-3 Second Dips



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Lab 4-Alkaline Earth-Oxidation

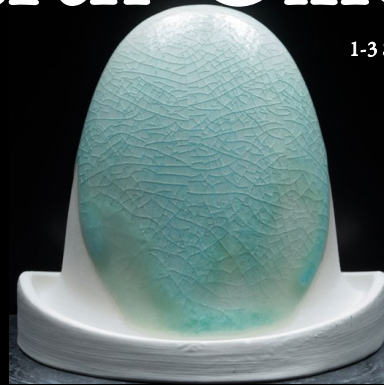
1-3 Second Dip



070722-1



070722-43



070722-44



070722-45



070722-46



070722-47

2-3 Second Dips



Original (D)



w/Talc



w/Mag Carb



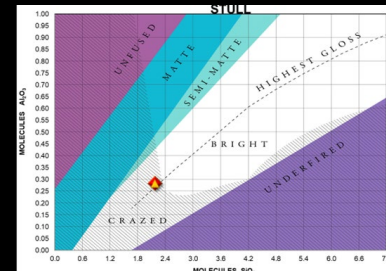
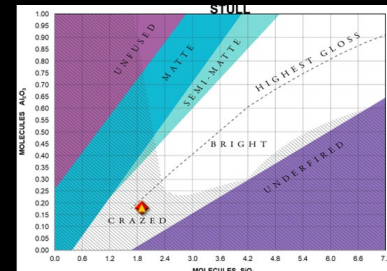
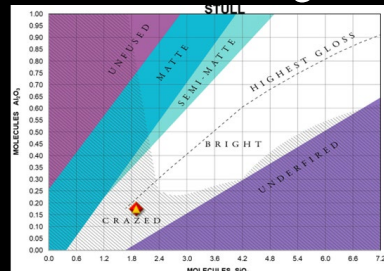
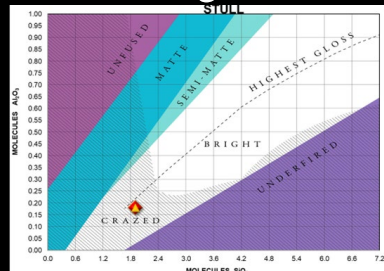
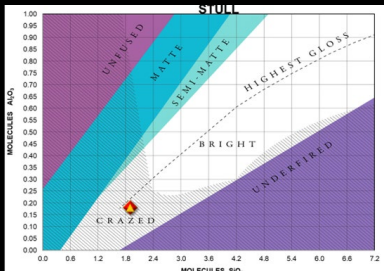
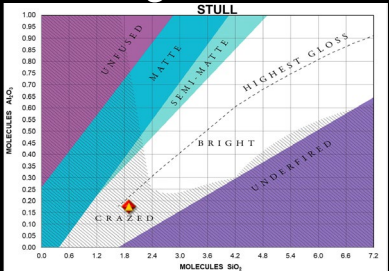
w/Whiting



w/Wollastonite



w/Strontium Carb



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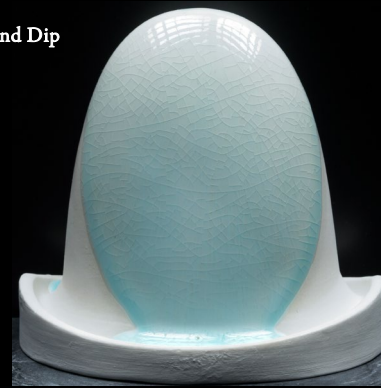
Lab 4-Alkaline Earth-Oxidation



070722-1



070722-48



070722-49



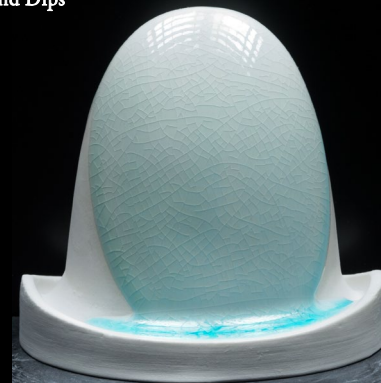
070722-50



Original (D)



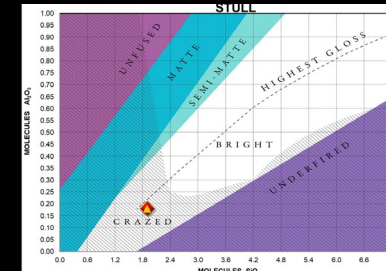
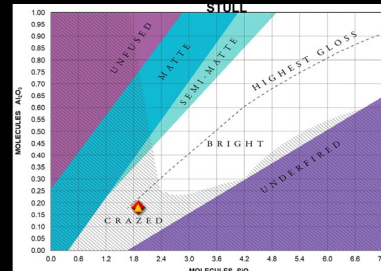
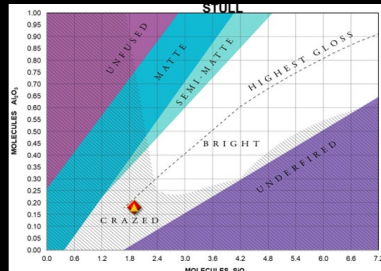
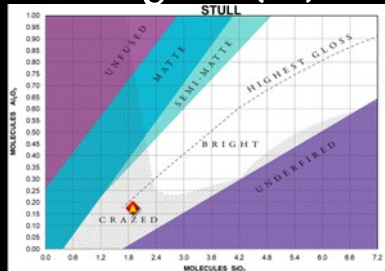
w/Barium Carb



w/Zinc Oxide



w/Bone Ash



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Lab 4-Alkaline Earth-Reduction

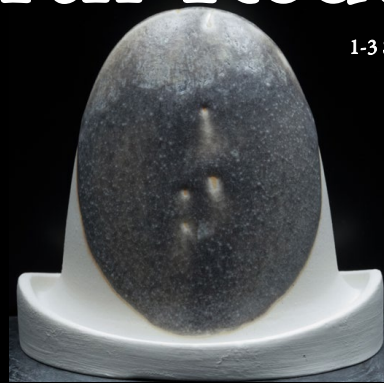
1-3 Second Dip



070722-1



070722-43



070722-44



070722-45



070722-46



070722-47

2-3 Second Dips



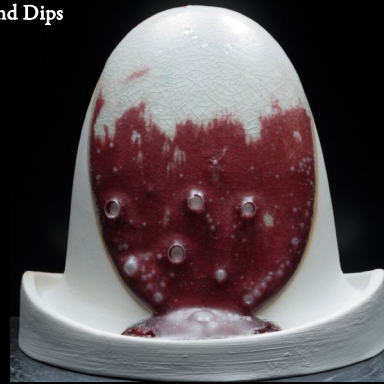
Original (D)



w/Talc



w/Mag Carb



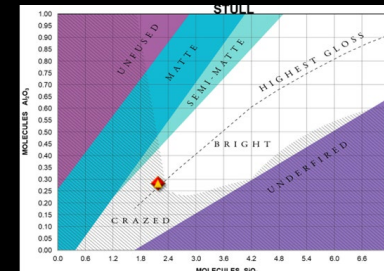
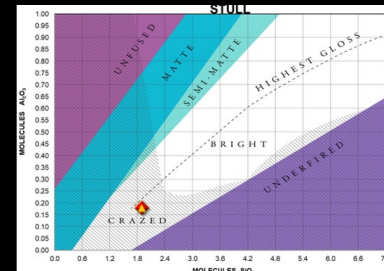
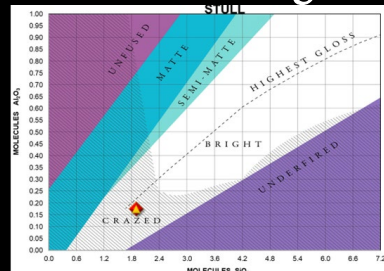
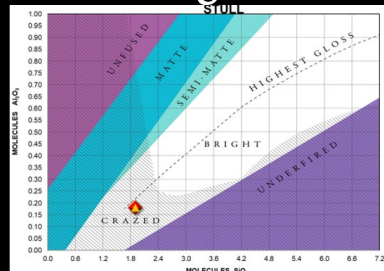
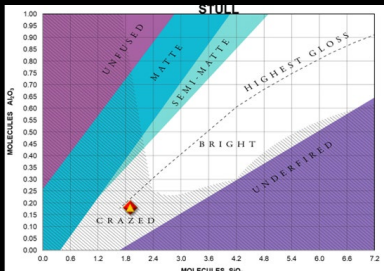
w/Whiting



w/Wollastonite



w/Strontium Carb



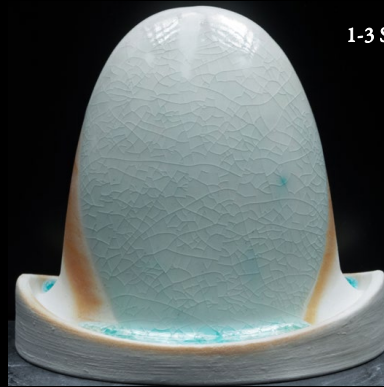
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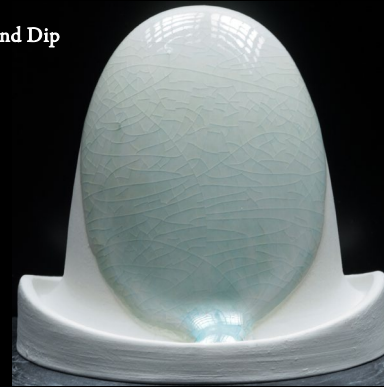
Lab 4-Alkaline Earth-Reduction



070722-1



070722-48



070722-49



070722-50

1-3 Second Dip

2-3 Second Dips



Original (D)



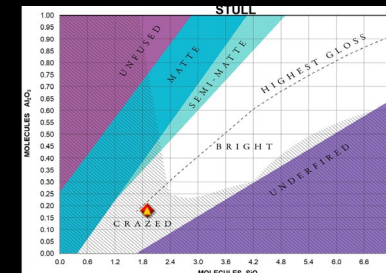
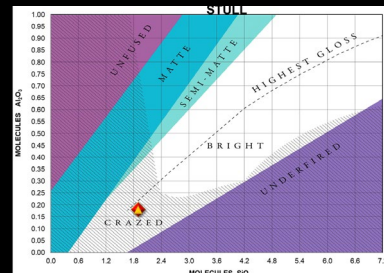
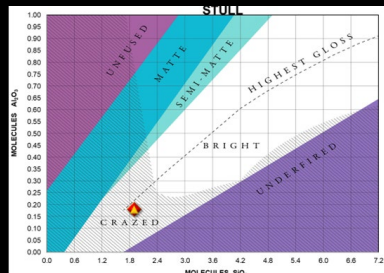
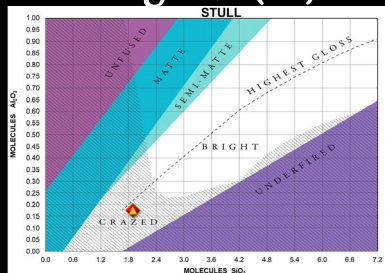
w/Barium Carb



w/Zinc Oxide



w/Bone Ash



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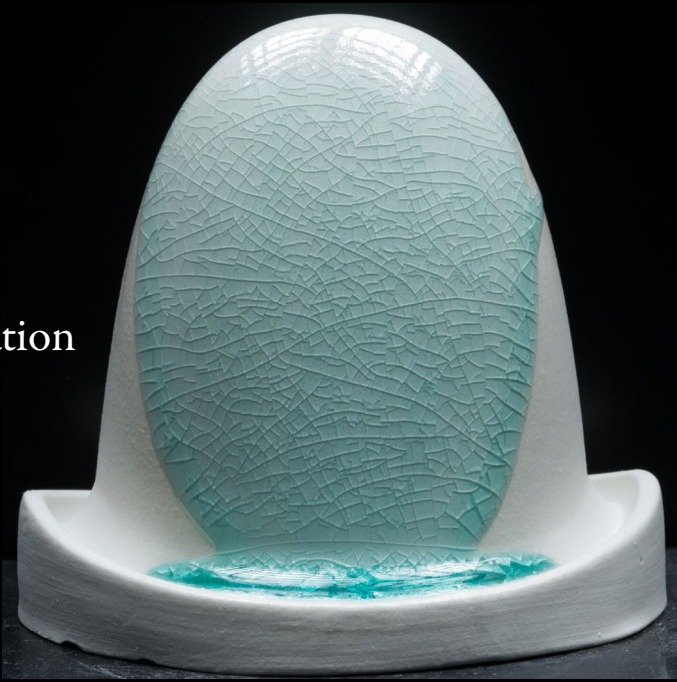
Birdie's Nest

Original
070722-1

Neph Sy	24.36
Dolomite	20.28
EPK	5.92
Flint	17.84
3134	29.59
Bentonite	2.01
Copper Carbonate	0.50
Water	60



1-3 Second Dip



2-3 Second Dips



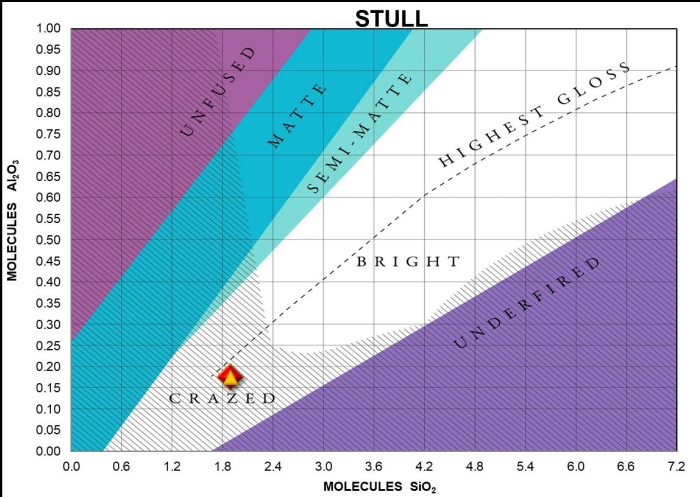
Reduction



Oxidation

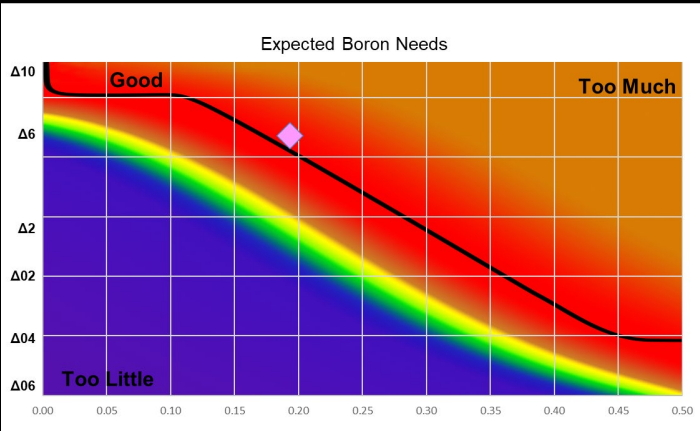
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.78 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.78 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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



Ceramic
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Birdie's Nest

Weight Substitution
G200 EU

070722-34

G200 EU	34.13
Dolomite	19.79
EPK	5.84
Flint	10.07
3134	30.16
Bentonite	2.00
Copper Carbonate	0.50
Water	80



1-3 Second Dip



2-3 Second Dips



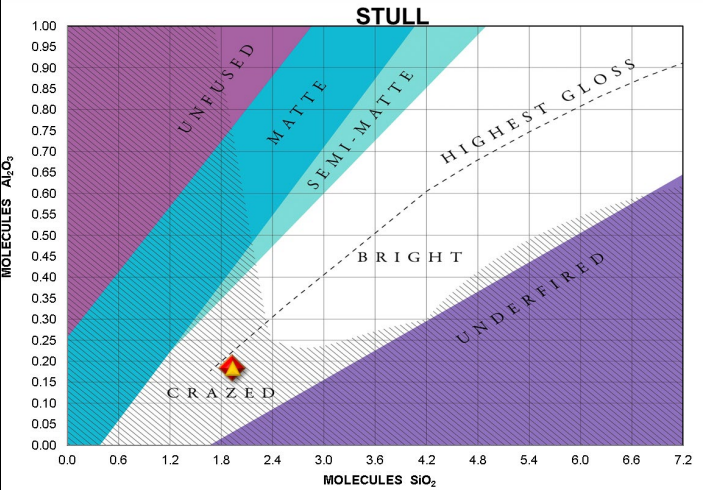
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.51 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.95	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.14	K ₂ O 0.09	MgO 0.25	CaO 0.52
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.51 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.14	K ₂ O 0.09	MgO 0.24	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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



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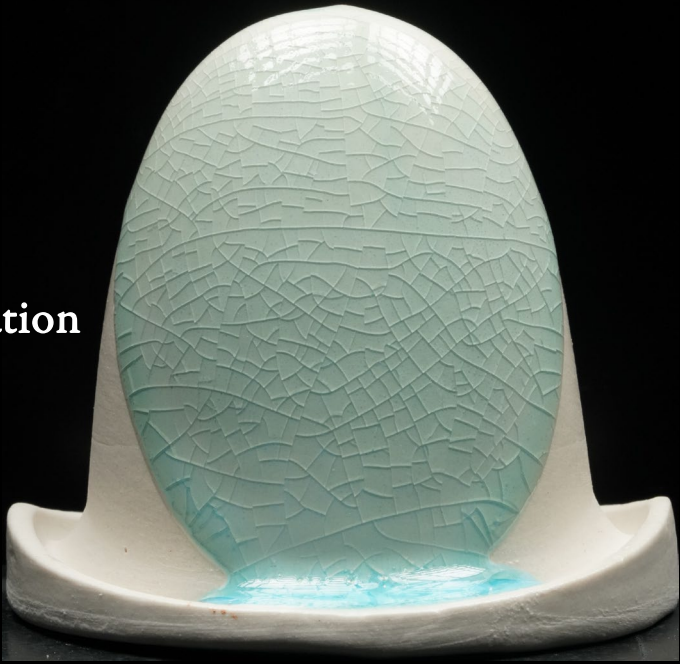
Birdie's Nest

Chemical Match
Mahavir Feldspar
070722-35

Mahavir	29.51
Dolomite	19.88
EPK	8.08
Flint	12.44
3134	30.09
Bentonite	2.00
Copper Carbonate	0.50
Water	60



1-3 Second Dip



2-3 Second Dips

Oxidation

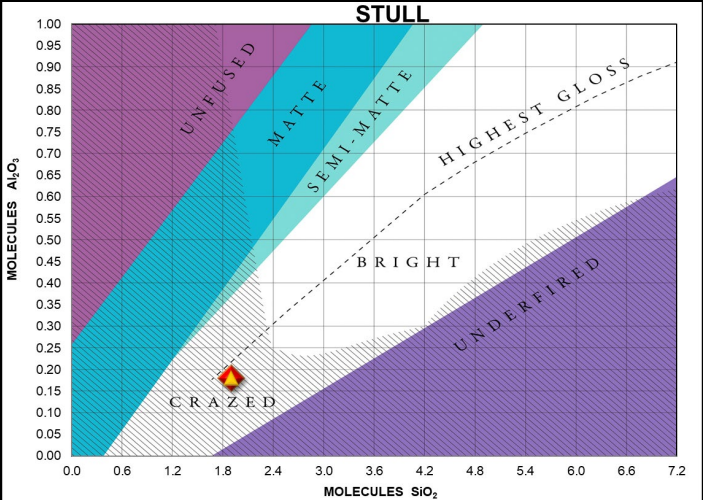


Reduction



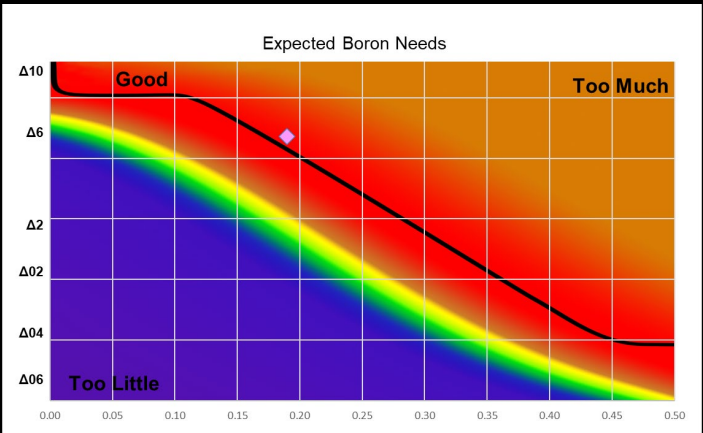
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.50 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.15	K ₂ O 0.08	MgO 0.25	CaO 0.52
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.25 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.15	K ₂ O 0.08	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.19	Li ₂ O	CuO 0.01	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



Ceramic
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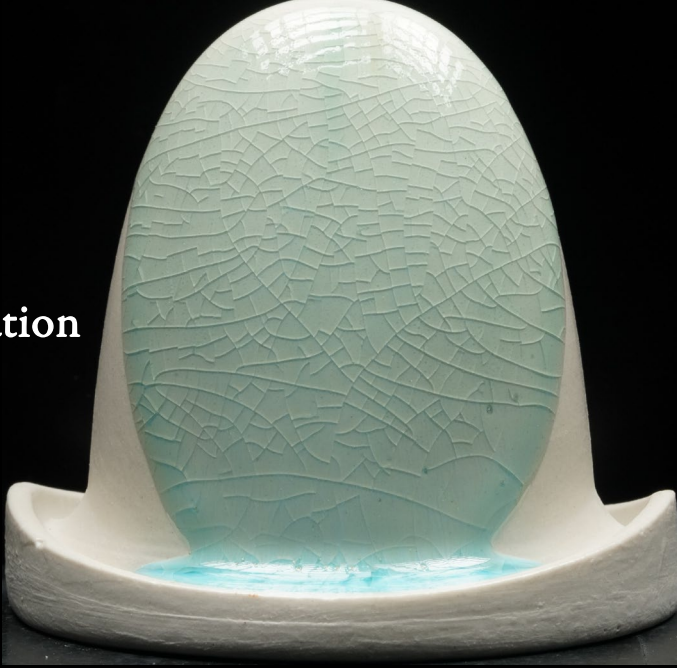
Birdie's Nest

Chemical Match
Custer Feldspar
070722-36

Custer	35.00
Dolomite	19.67
EPK	6.50
Flint	8.57
3134	30.26
Bentonite	2.00
Copper Carbonate	0.50
Water	60



1-3 Second Dip



2-3 Second Dips

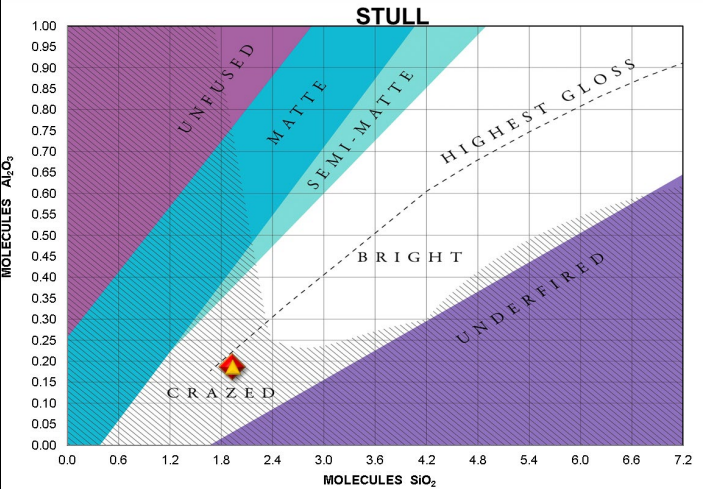
Oxidation



Reduction

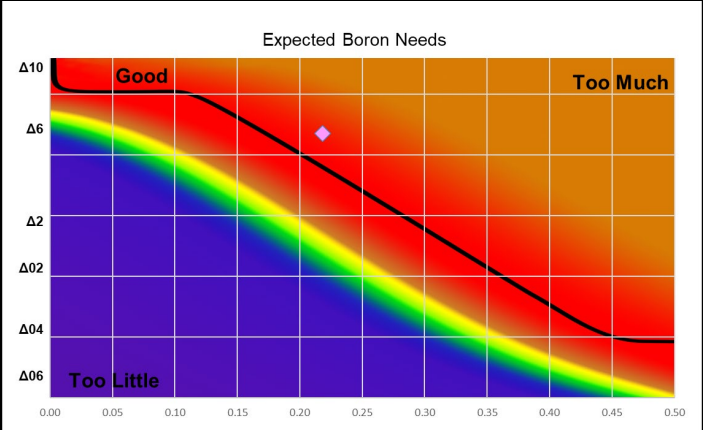
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.54 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.14	K ₂ O 0.09	MgO 0.25	CaO 0.52
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.28 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.14	K ₂ O 0.09	MgO 0.24	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.19	Li ₂ O	CuO 0.01	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



Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Minspar
070722-37

Minspar	35.62
Dolomite	19.60
EPK	4.36
Flint	9.89
3134	30.54
Bentonite	2.00
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips

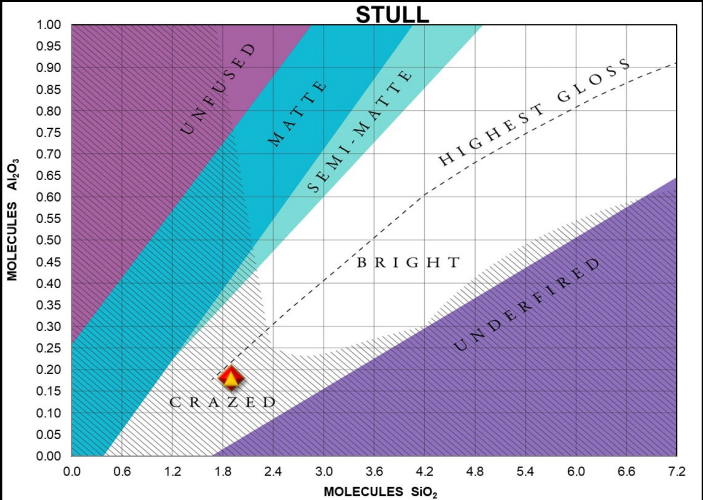


Reduction

Oxidation

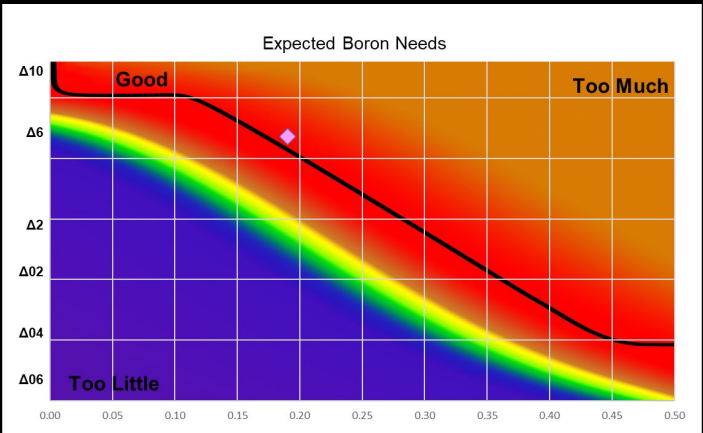
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.48 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.24	CaO 0.53
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.00	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.23 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.19	K ₂ O 0.03	MgO 0.24	CaO 0.52
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.19	Li ₂ O	CuO 0.01	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.00	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Spodumene
070722-38

Spodumene	19.94
Dolomite	20.59
EPK	8.32
Flint	20.30
3134	30.85
Bentonite	2.00
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips



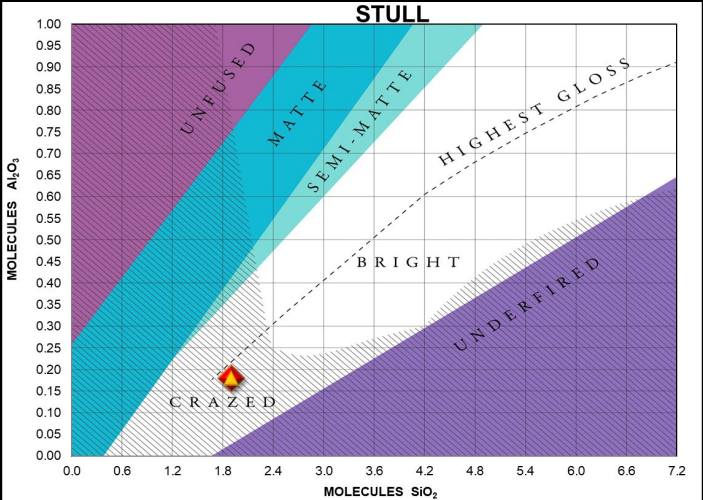
Reduction



Oxidation

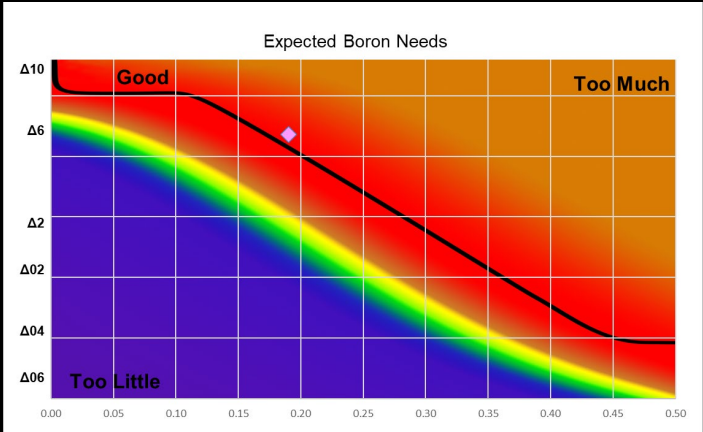
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.43 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.12	K ₂ O 0.00	MgO 0.25	CaO 0.52
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	Li ₂ O 0.11	CuO 0.00	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.00



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.19 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.12	K ₂ O 0.00	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.19	Li ₂ O 0.11	CuO 0.01	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.00
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.00



Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match

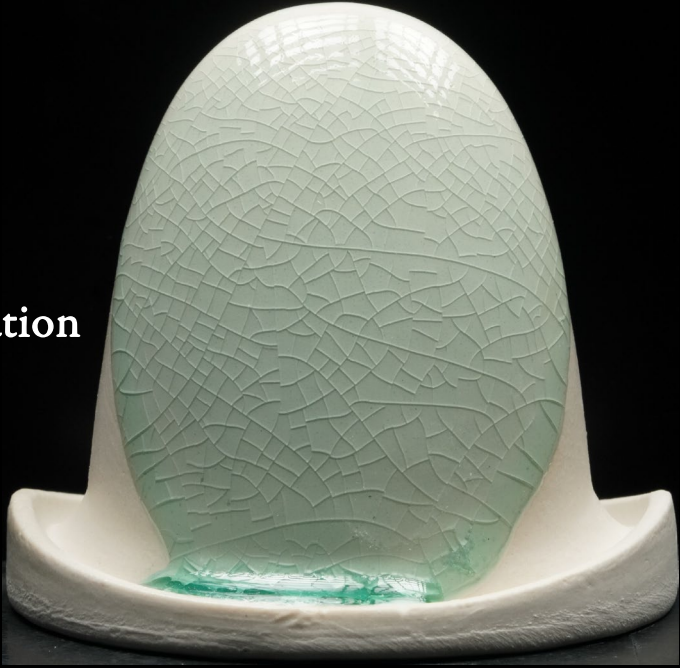
Frit 3110

070722-40

3110	18.97
Dolomite	19.04
EPK	19.80
Flint	14.00
3134	28.18
Bentonite	2.00
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips



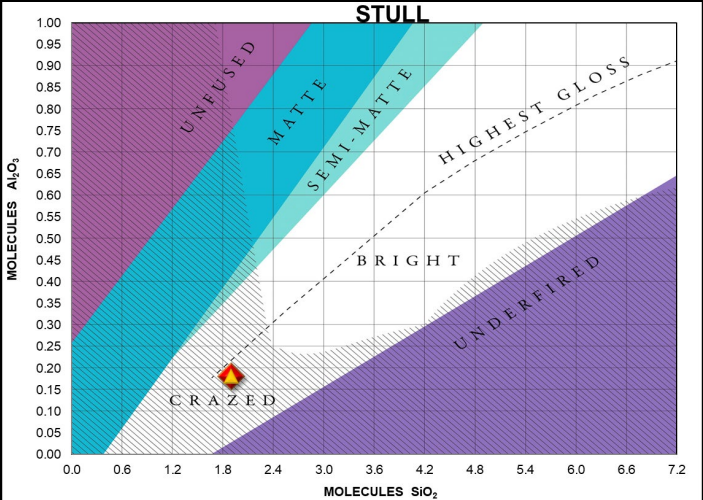
Reduction



Oxidation

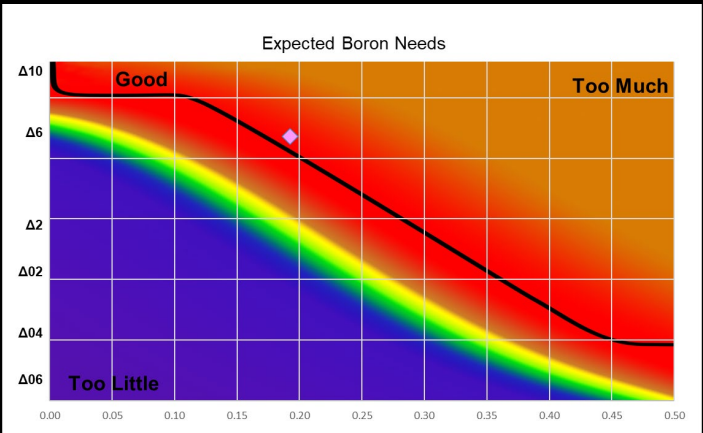
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.73 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.89	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.01	MgO 0.24	CaO 0.53
B ₂ O ₃ 0.20	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 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.46 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.01	MgO 0.23	CaO 0.53
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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



Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Lithium Carbonate
070722-42

Lithium Carb	3.63
Dolomite	19.6
EPK	22.09
Flint	25.00
3134	29.68
Bentonite	2.00
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips



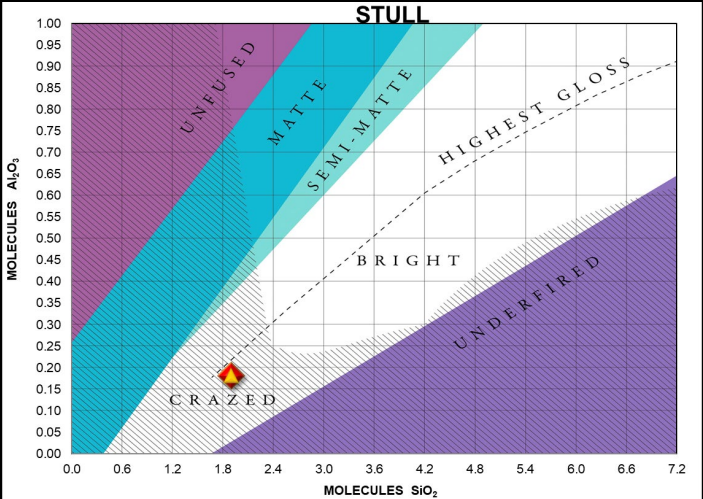
Reduction



Oxidation

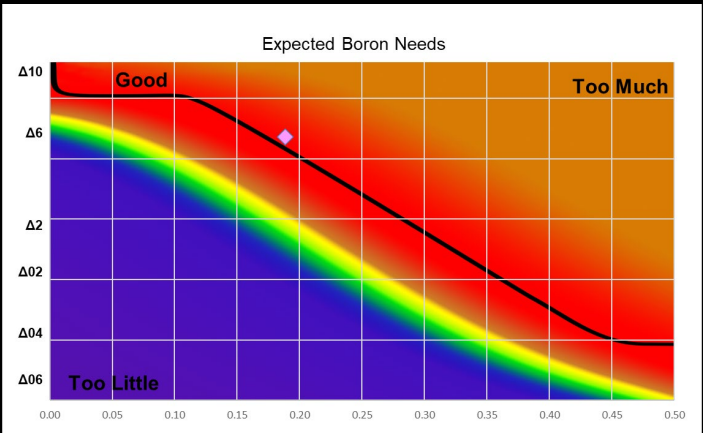
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.45 :1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.11	K ₂ O 0.00	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	Li ₂ O 0.11	CuO 0.00	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.01
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.00



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.20 :1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.93	Collective "Al ₂ O ₃ " 0.19	Na ₂ O 0.11	K ₂ O 0.00	MgO 0.25	CaO 0.51
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.19	Li ₂ O 0.11	CuO 0.01	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO 0.00	Bi ₂ O ₃ 0.00	SnO ₂ 0.00	ZnO 0.00	FeO 0.01
Cr ₂ O ₃ 0.00	ZrO ₂ 0.00	P ₂ O ₅ 0.00		MnO ₂ 0.00	CoO 0.00



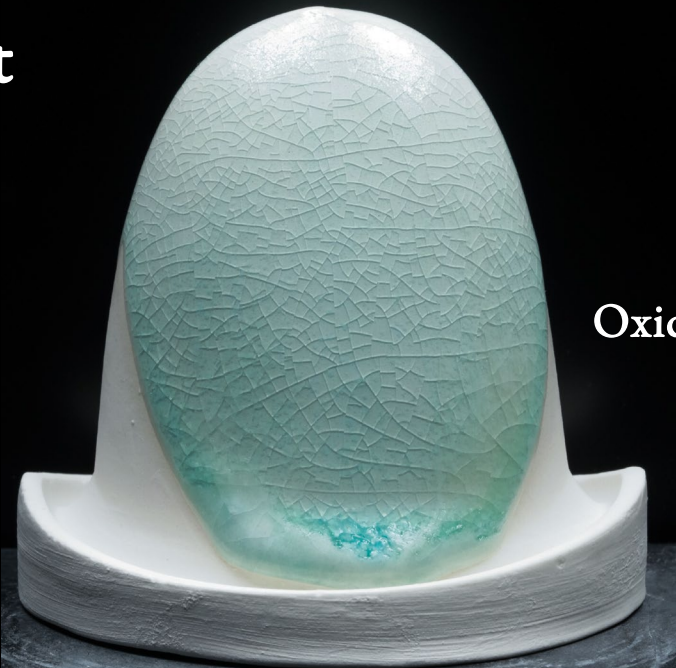
Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Talc

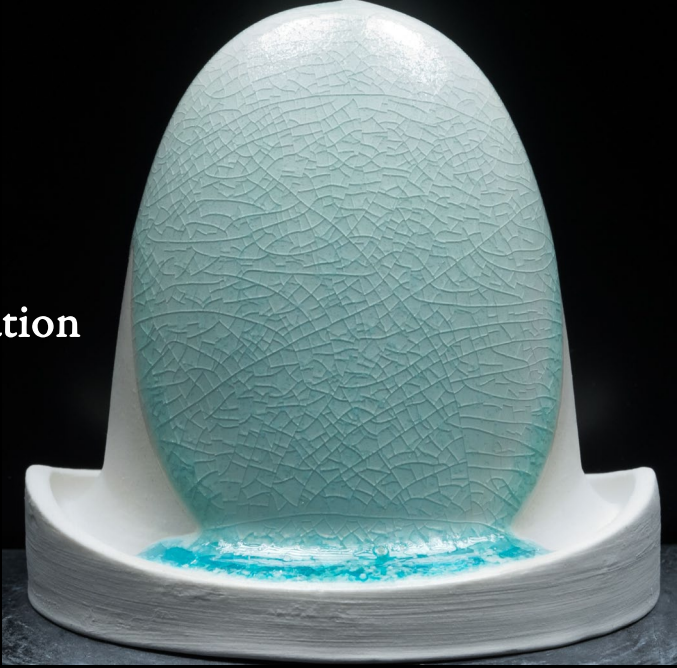
070722-43

Neph Sy	26.39
Talc	29.36
EPK	7.09
Flint	3.13
3134	32.05
Bentonite	1.99
Copper Carbonate	0.50
Water	90



Oxidation

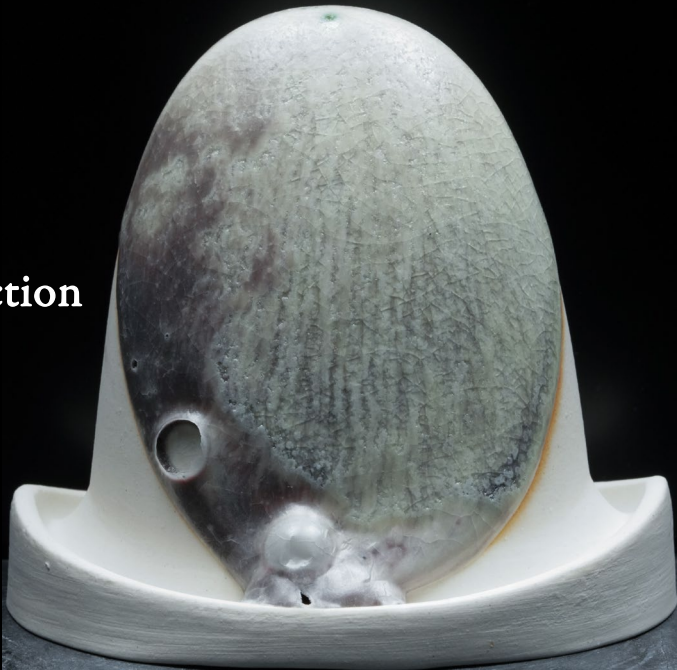
1-3 Second Dip



2-3 Second Dips

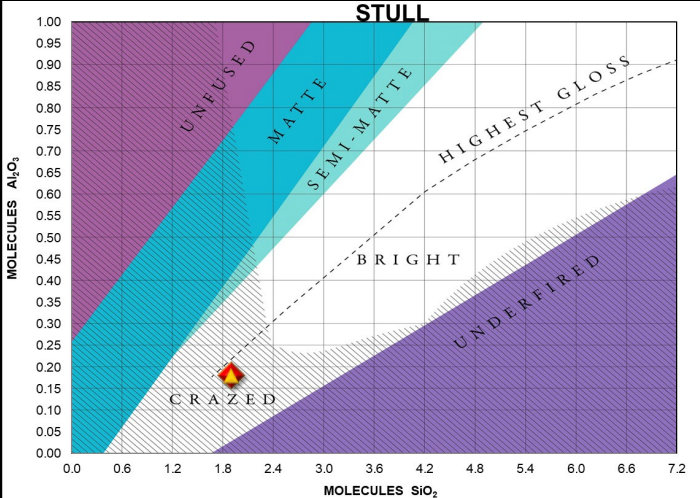


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.92 : 1		Alkali Metals 0.18		Alkaline Earths 0.82	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.17	Na ₂ O 0.12	K ₂ O 0.07	MgO 0.53	CaO 0.28
B ₂ O ₃ 0.17	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 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.49 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.45	CaO 0.30
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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



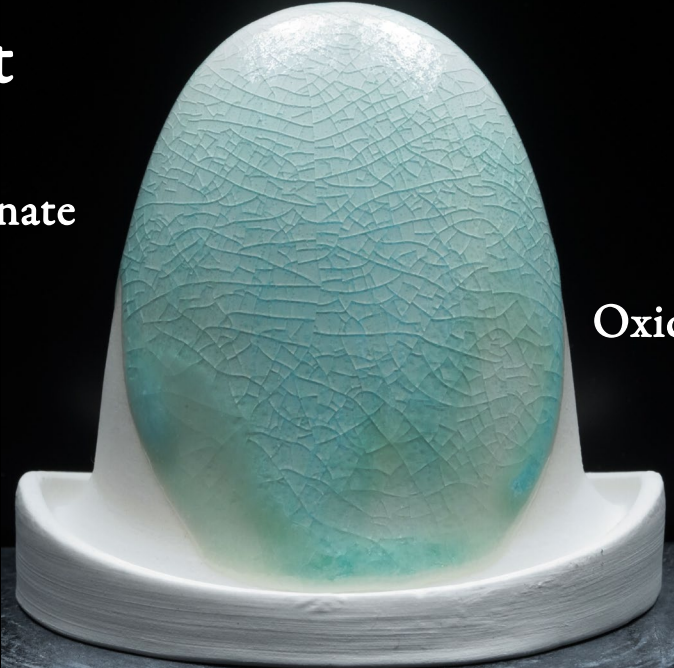
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ceramicmaterialsworkshop.com

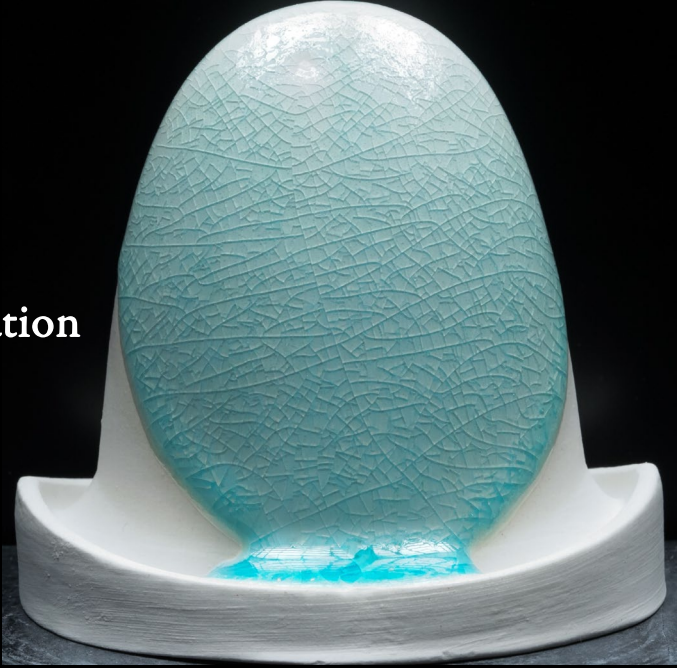
Birdie's Nest

Chemical Match
Magnesium Carbonate
070722-44

Neph Sy	25.45
Mag Carbonate	18.58
EPK	6.32
Flint	18.04
3134	29.61
Bentonite	1.99
Copper Carbonate	0.49
Water	150



Oxidation



2-3 Second Dips

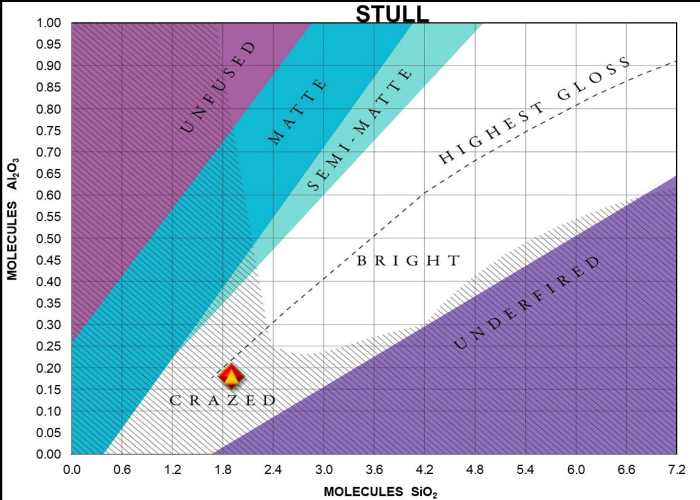


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.48 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.50	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	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 10.48 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.50	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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

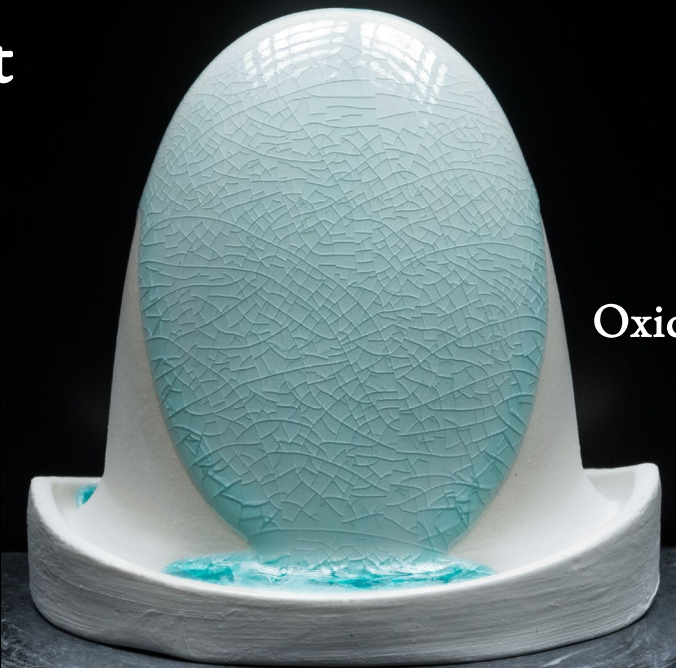


Ceramic
Materials
Workshop

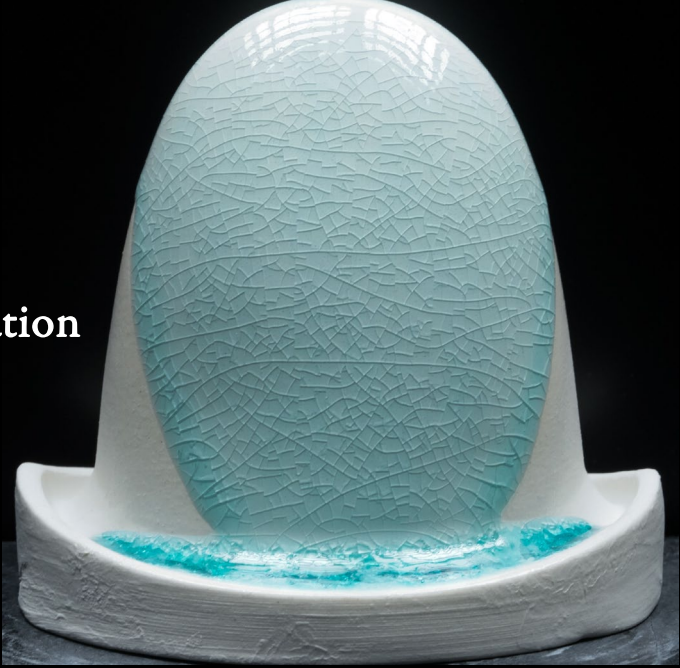
Birdie's Nest

Chemical Match
Whiting
070722-45

Neph Sy	24.56
Whiting	21.79
EPK	5.34
Flint	17.72
3134	28.60
Bentonite	2.00
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips

Oxidation

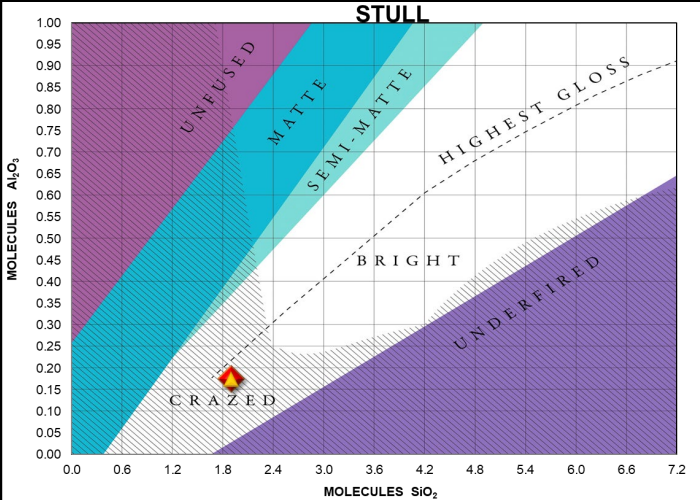


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.84 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.00	CaO 0.76
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	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 10.84 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.00	CaO 0.75
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.17	Li ₂ O	CuO 0.01	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

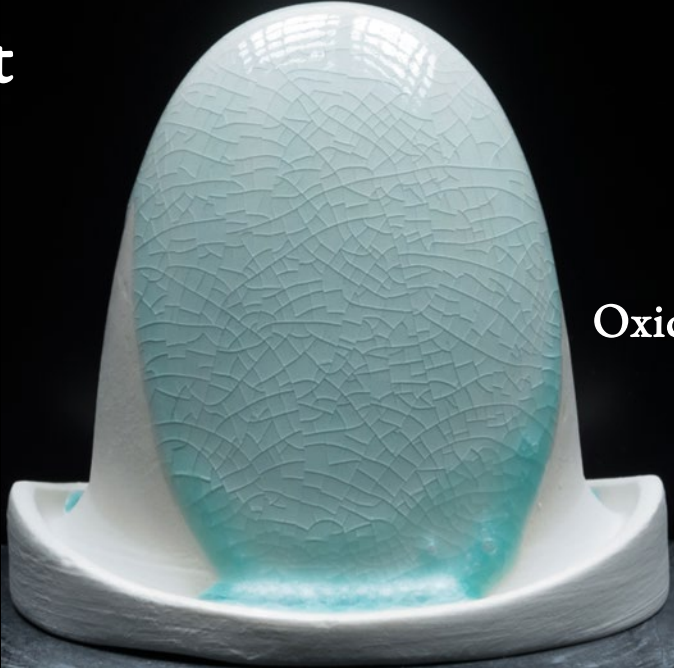


Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Wollastonite
070722-46

Neph Sy	26.28
Wollastonite	28.90
EPK	6.51
Flint	4.41
3134	31.91
Bentonite	1.99
Copper Carbonate	0.50
Water	80



1-3 Second Dip



2-3 Second Dips

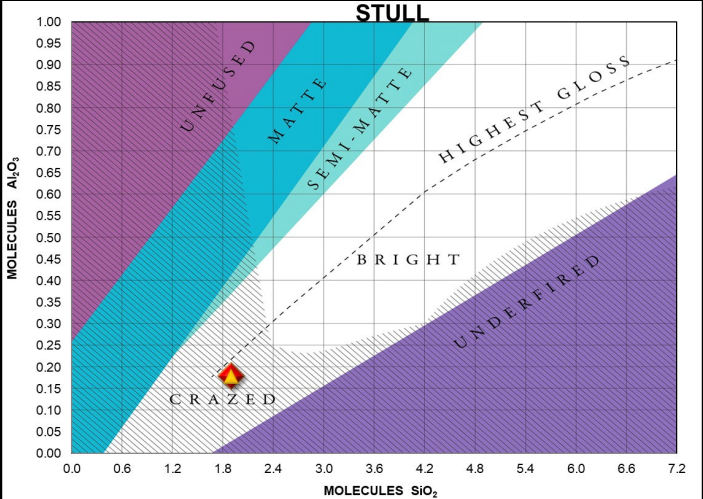


Reduction

Oxidation

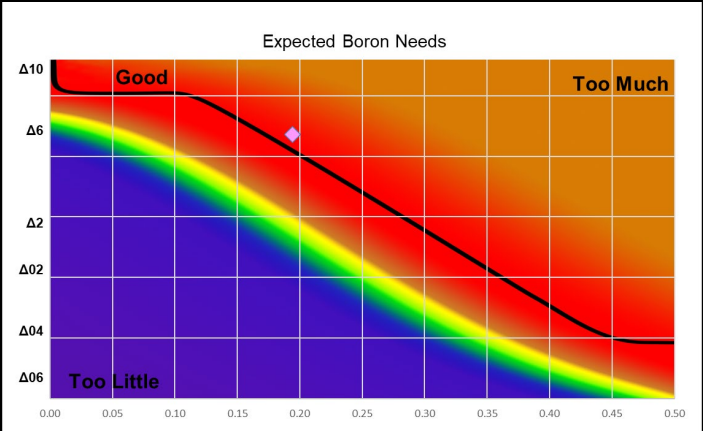
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.55 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.02	CaO 0.74
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 10.55 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.02	CaO 0.73
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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

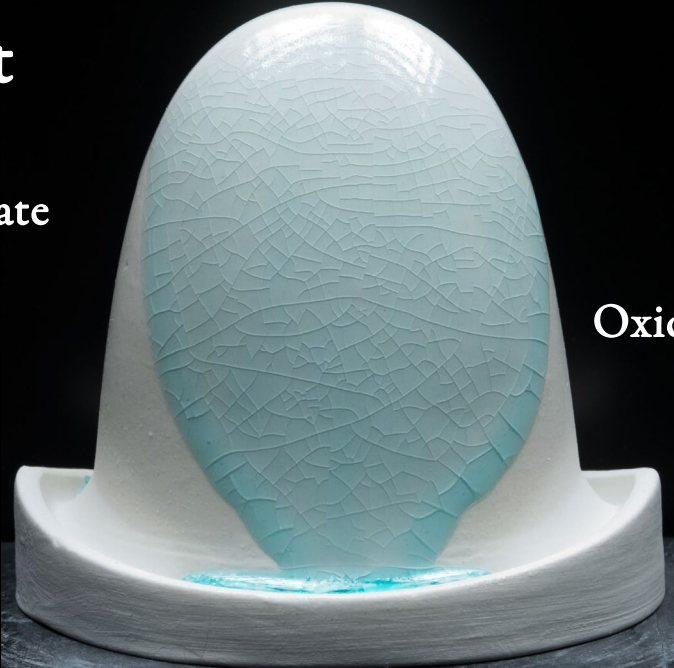


Ceramic
Materials
Workshop

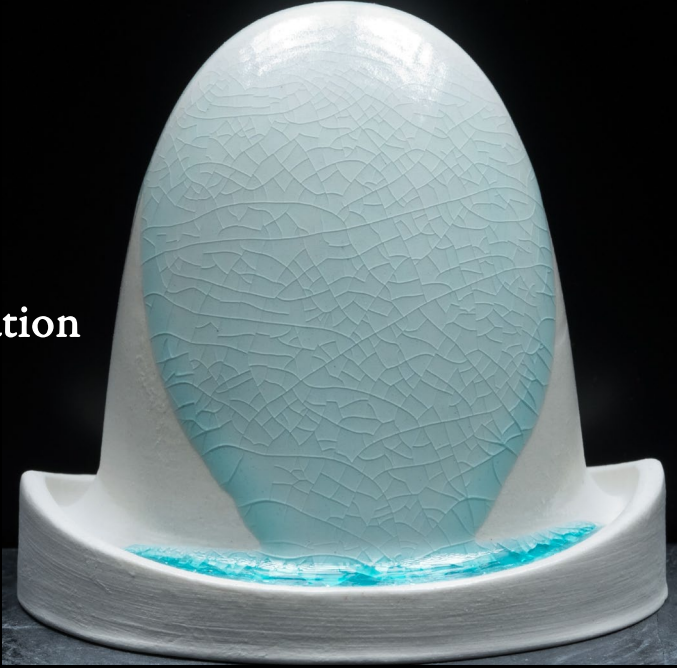
Birdie's Nest

Chemical Match
Strontium Carbonate
070722-47

Neph Sy	22.18
Strontium Carb	29.03
EPK	5.39
Flint	15.67
3134 (Frit)	25.83
Bentonite	2.00
Copper Carbonate	0.50
Water	80



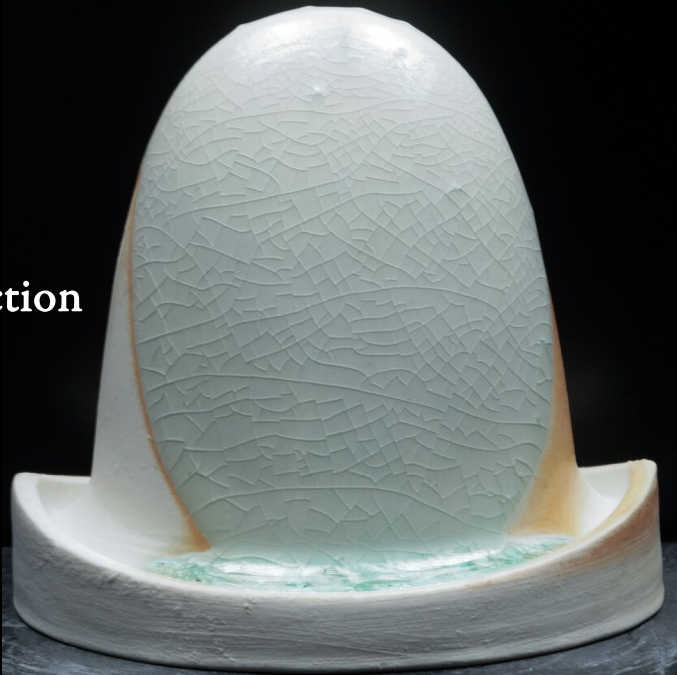
1-3 Second Dip



2-3 Second Dips



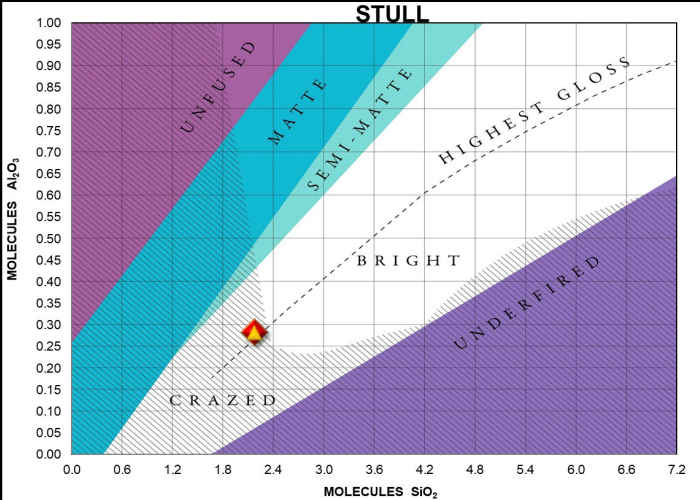
Reduction



Oxidation

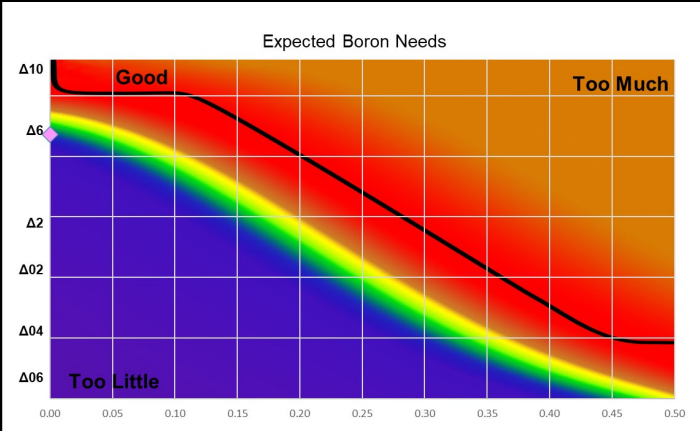
UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.67 : 1		Alkali Metals 0.19		Alkaline Earths 0.81	
SiO ₂ 2.21	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.01	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO 0.79	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 7.67 : 1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.18	Collective "Al ₂ O ₃ " 0.28	Na ₂ O 0.15	K ₂ O 0.04	MgO 0.01	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.28	Li ₂ O	CuO 0.02	SrO 0.78	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

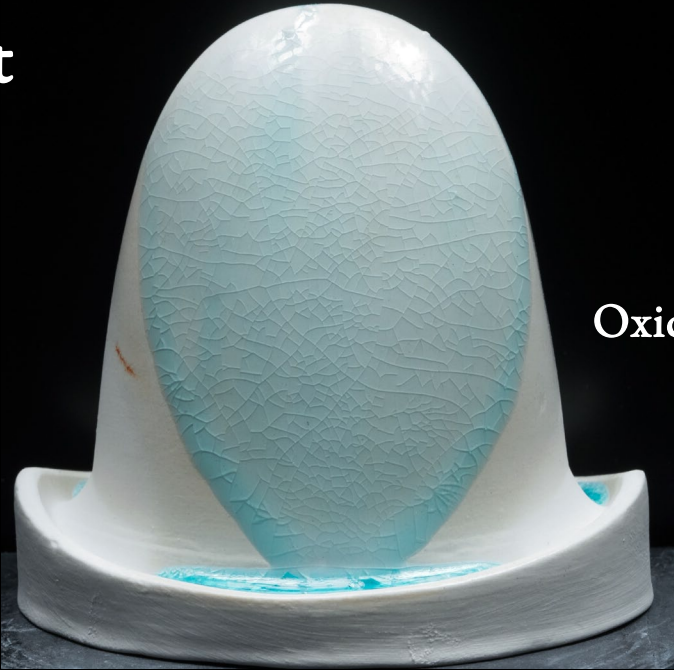


Ceramic
Materials
Workshop

Birdie's Nest

Chemical Match
Barium Carbonate
070722-48

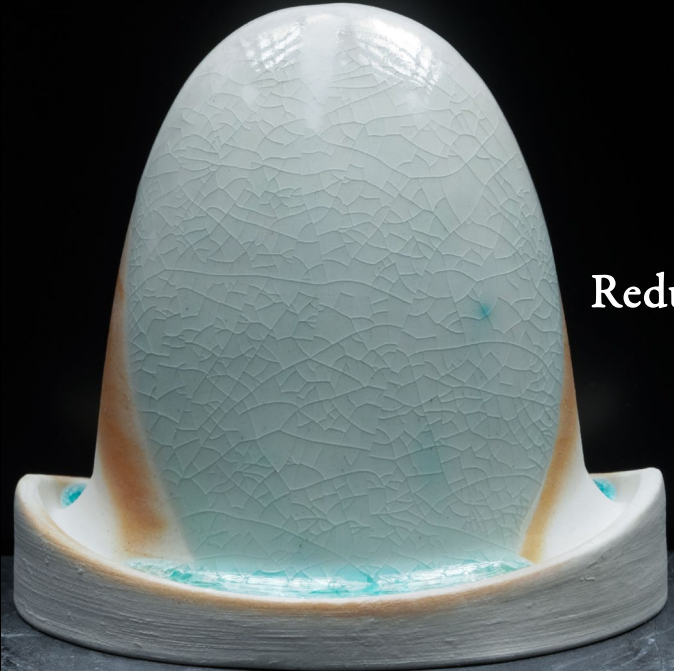
Neph Sy	20.19
Barium Carb	35.28
EPK	4.82
Flint	14.23
3134	23.49
Bentonite	2.00
Copper Carbonate	0.50
Water	80



1-3 Second Dip



2-3 Second Dips



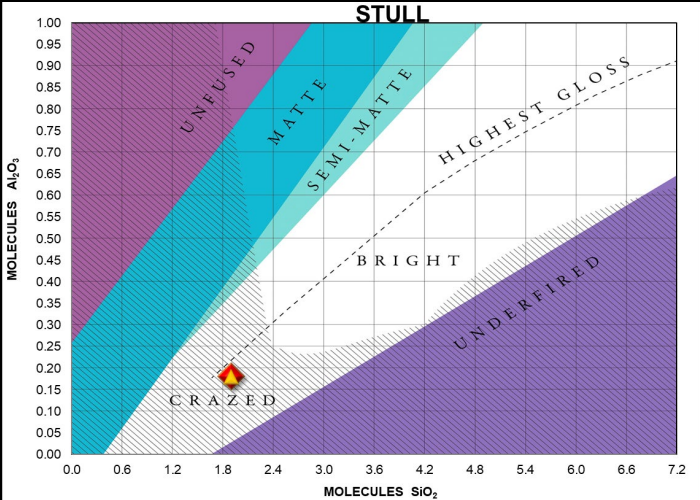
Reduction



Oxidation

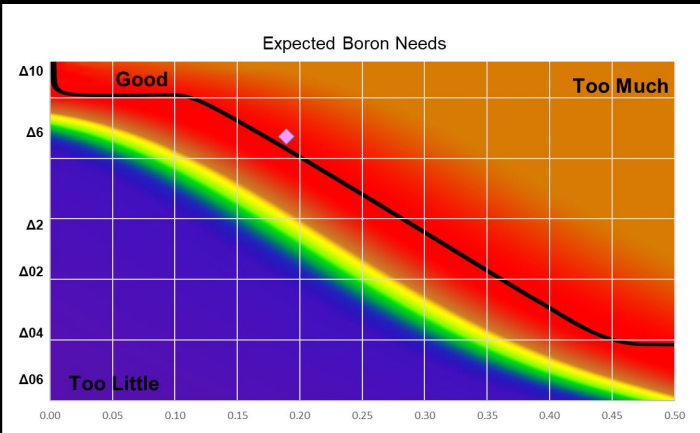
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.51 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.00	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO	SrO	BaO 0.50
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 10.51 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.00	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	SrO	BaO 0.49
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

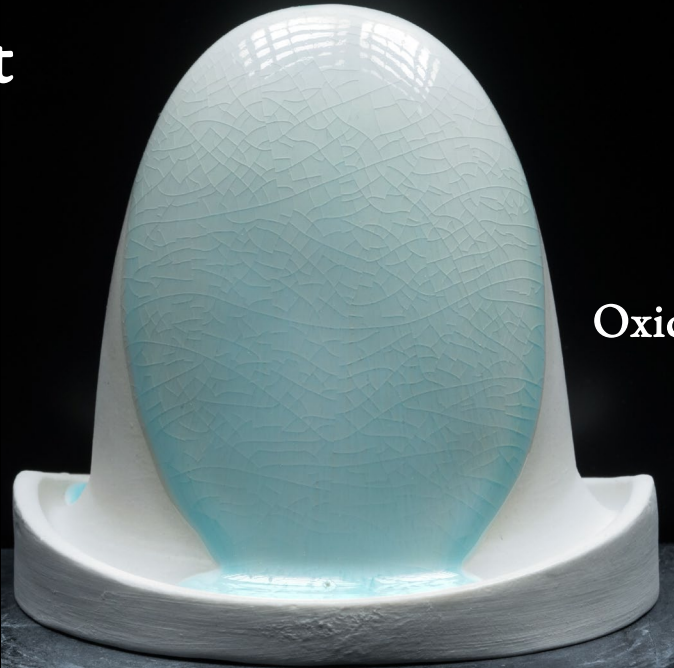


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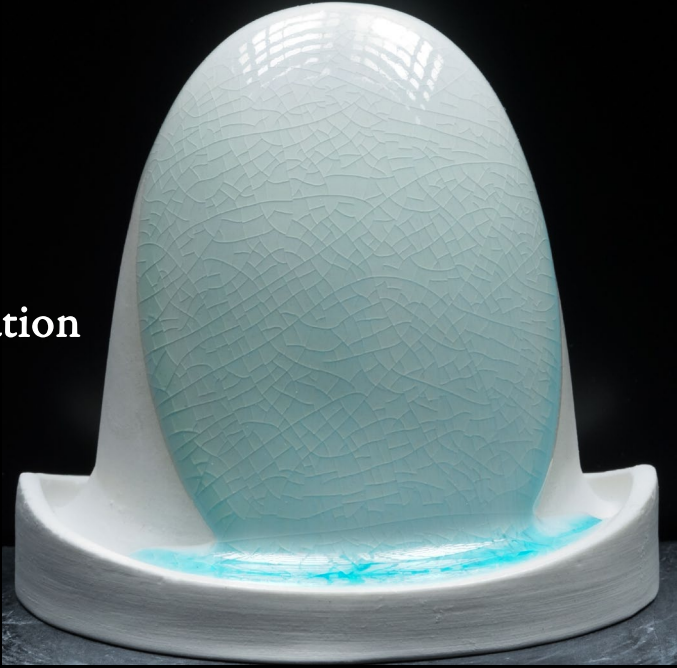
Birdie's Nest

Chemical Match
Zinc Oxide
070722-49

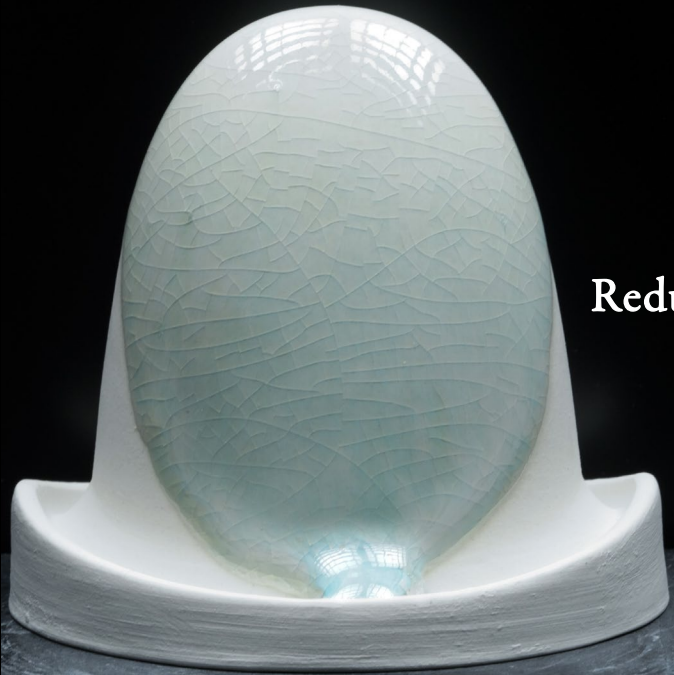
Neph Sy	25.50
Zinc Oxide	18.40
EPK	6.27
Flint	18.02
3134	29.70
Bentonite	2.10
Copper Carbonate	0.49
Water	80



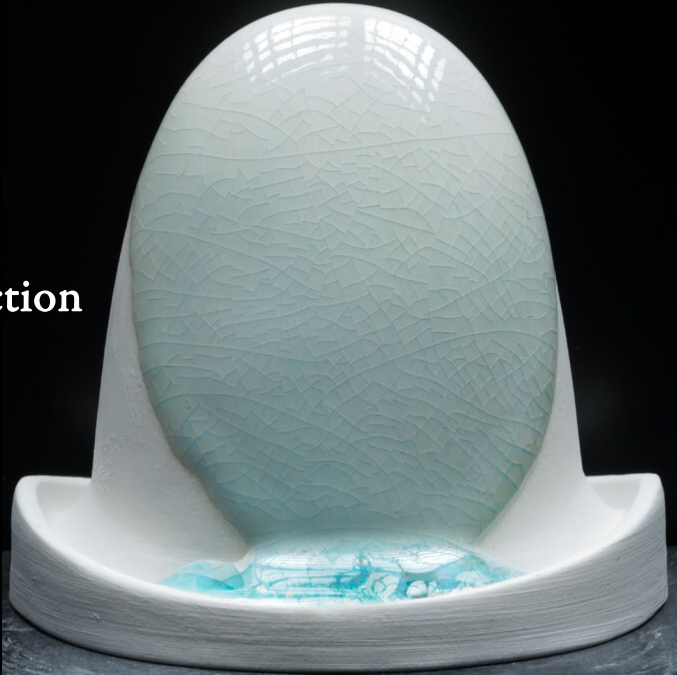
1-3 Second Dip



2-3 Second Dips



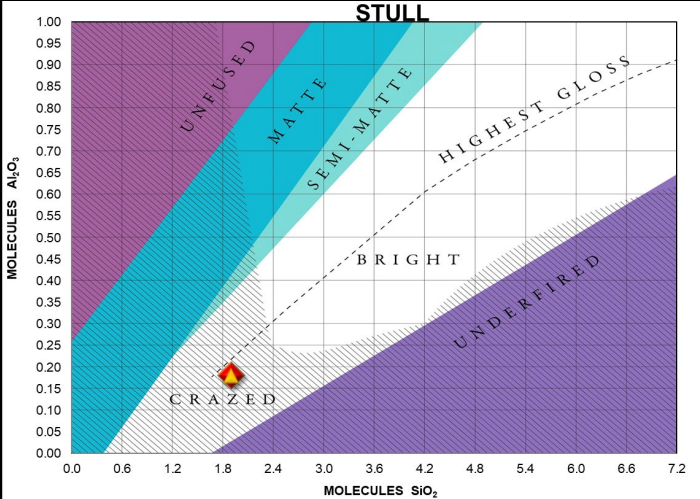
Reduction



Oxidation

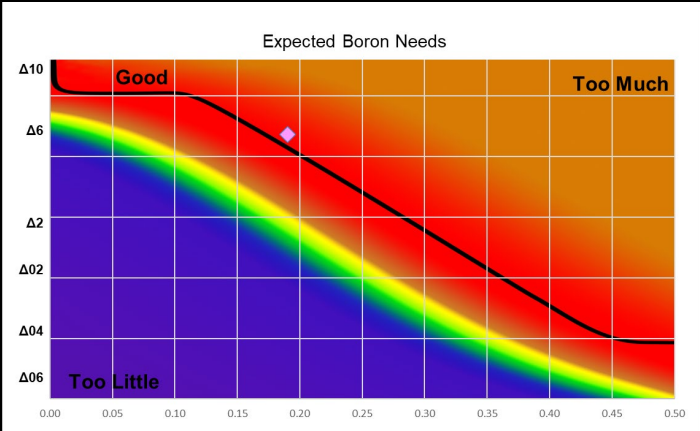
UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.50 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.00	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.50	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.50 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.00	CaO 0.26
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.50	FeO 0.00
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

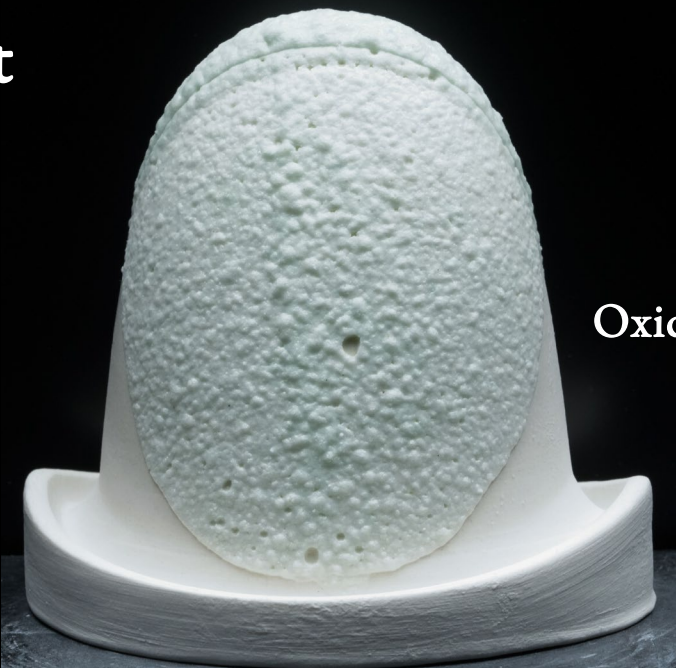


Ceramic
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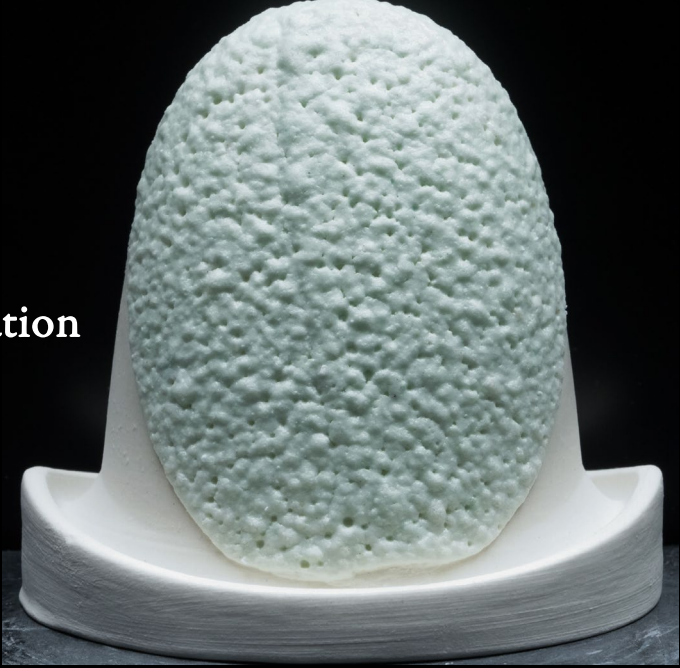
Birdie's Nest

Chemical Match
Bone Ash
070722-50

Neph Sy	22.10
Bone Ash	27.67
EPK	5.73
Flint	15.67
3134	26.84
Bentonite	1.99
Copper Carbonate	0.50
Water	70



1-3 Second Dip



2-3 Second Dips

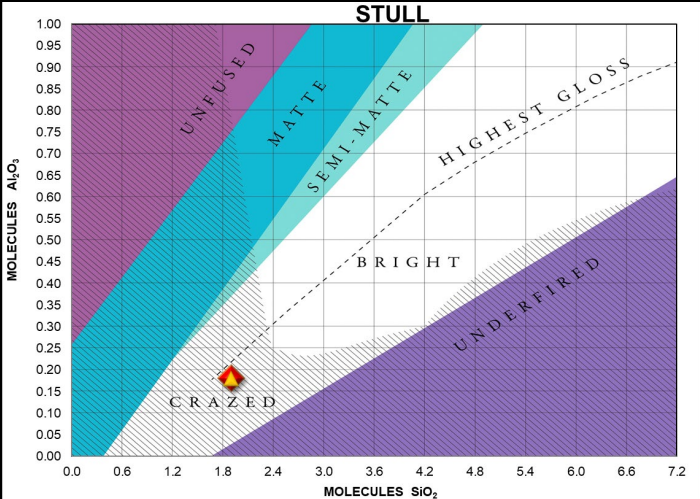


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.50 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.92	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.21	K ₂ O 0.03	MgO 0.00	CaO 0.76
B ₂ O ₃ 0.20	Al ₂ O ₃ 0.18	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 0.27		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.50 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.18	Na ₂ O 0.20	K ₂ O 0.03	MgO 0.00	CaO 0.75
B ₂ O ₃ 0.19	Al ₂ O ₃ 0.18	Li ₂ O	CuO 0.01	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 0.27		MnO ₂	CoO



Ceramic
Materials
Workshop