

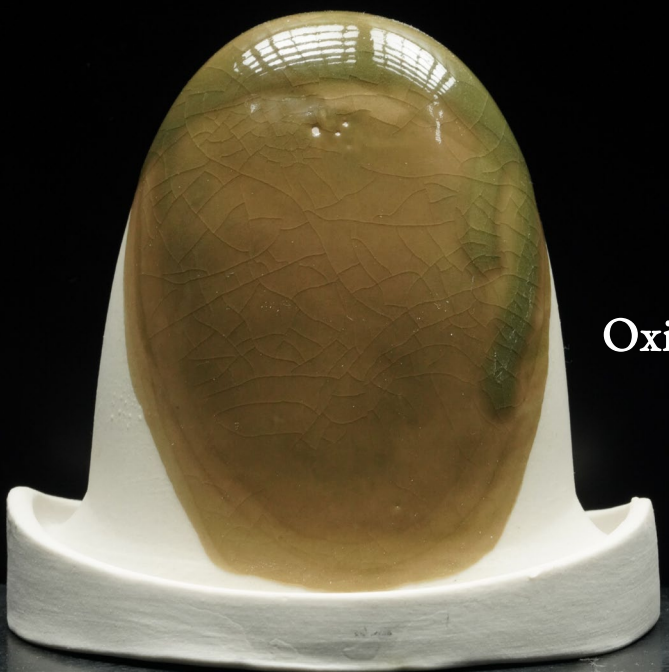
4321- Δ 10

Lab 4-Back to the Flux Capacity

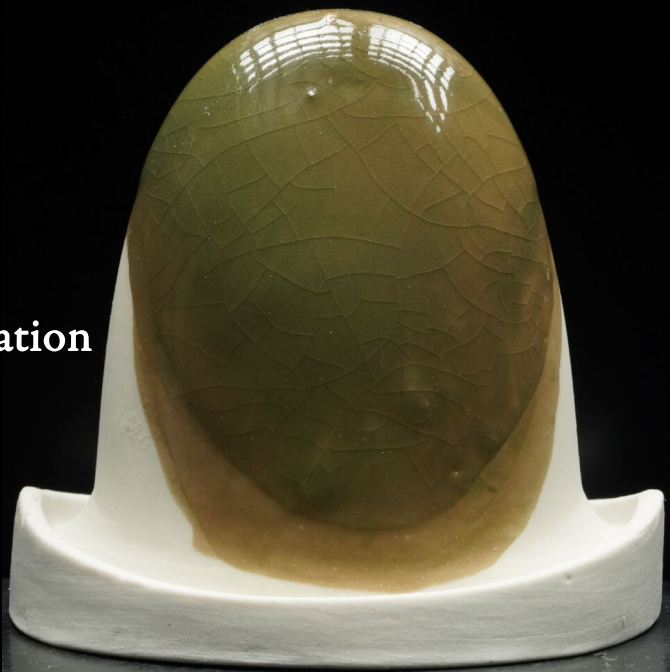
4321

Original
062322-1

Neph Sy	40.00
Whiting	20.00
EPK	10.00
Flint	30.00
Chrome Oxide	1.00
Water	60

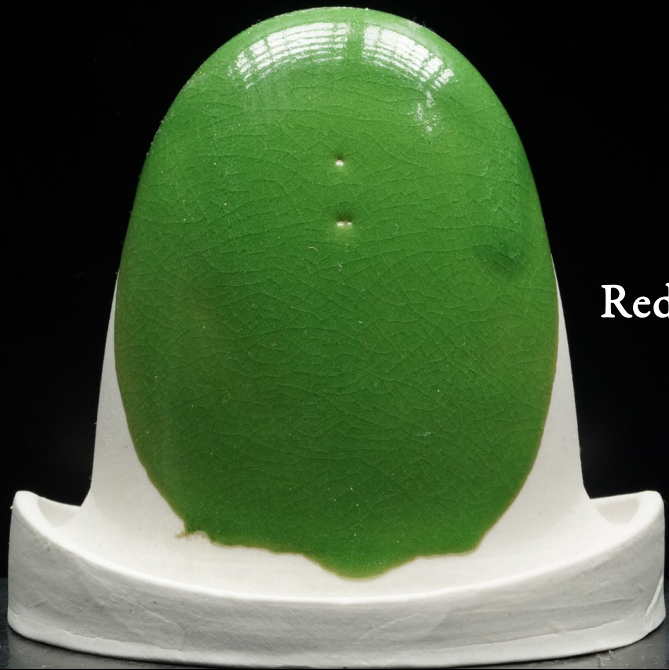


Oxidation

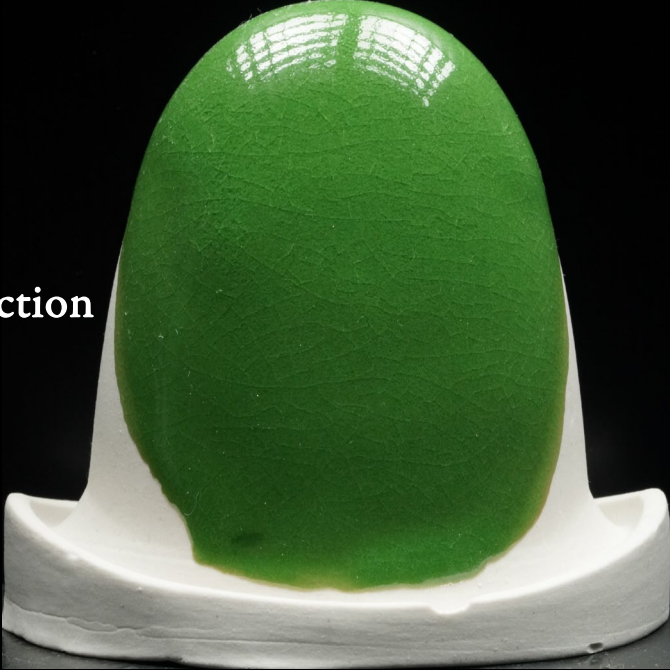


1-3 Second Dip

2-3 Second Dips

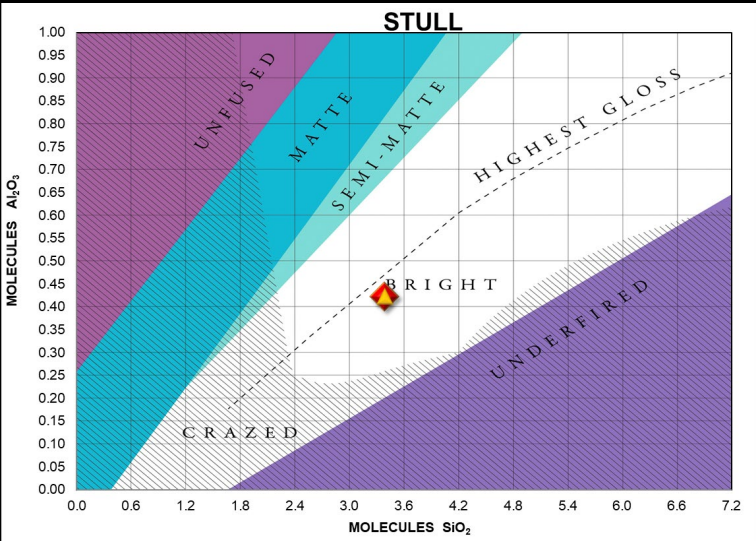


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.99 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 7.99 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



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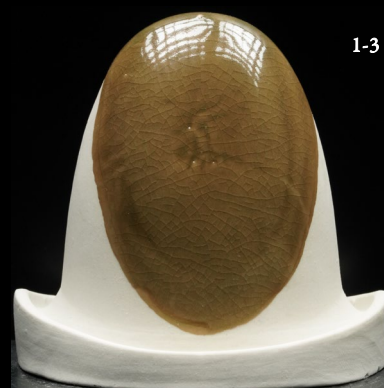
Lab 4-Alkali Metals-Oxidation



062322-1



062322-35



062322-36



062322-37



062322-X1



062322-38

1-3 Second Dip

2-3 Second Dips



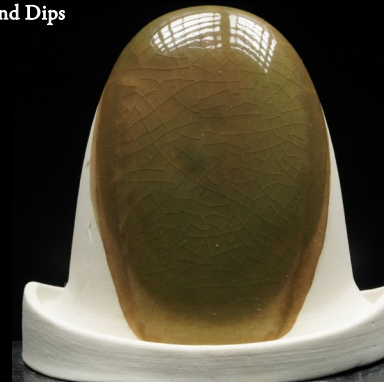
Original (NS)



w/Mahavir



w/Custer



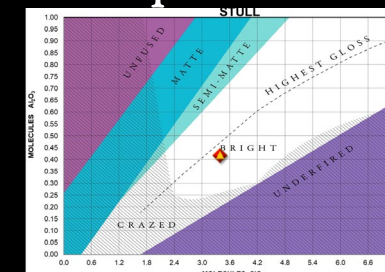
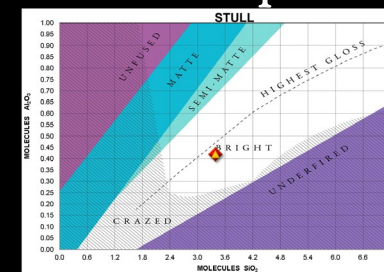
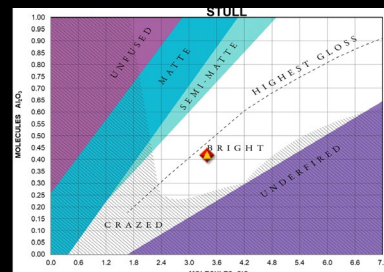
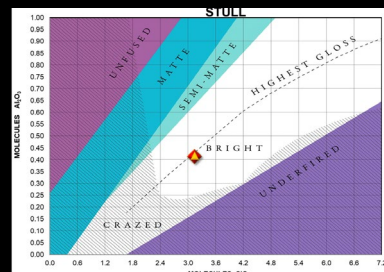
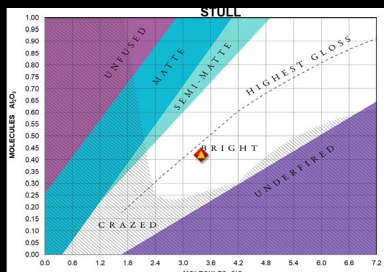
w/G200EU



w/Minspar



w/Spodumene



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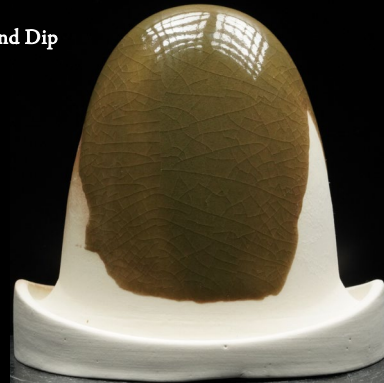
Lab 4-Alkali Metals-Oxidation



062322-1



062322-40



062322-41



062322-42

1-3 Second Dip

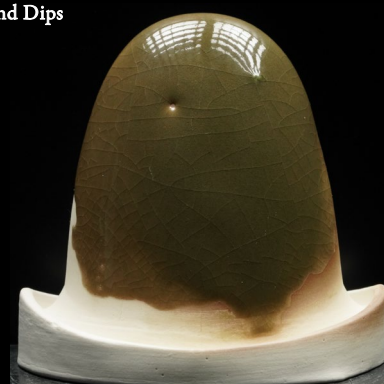
2-3 Second Dips



Original (NS)



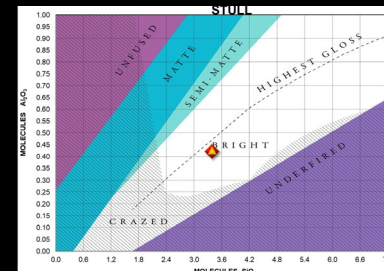
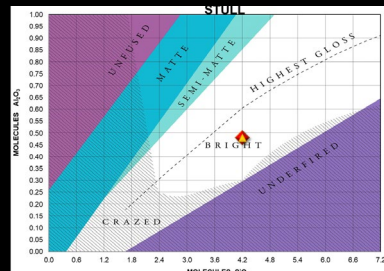
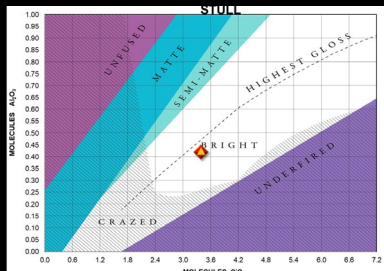
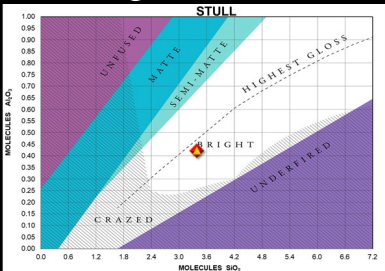
w/Frit 3110



w/Cornwall



w/Lithium Carbonate



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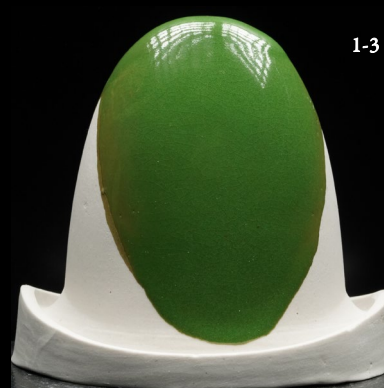
Lab 4-Alkali Metals-Reduction



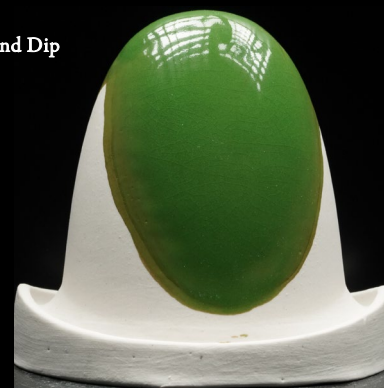
062322-1



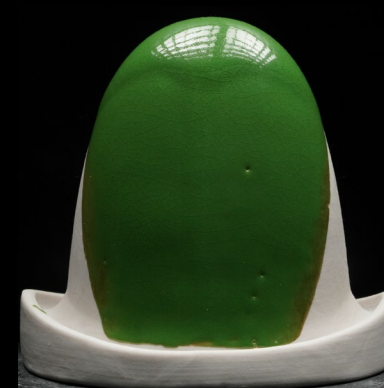
062322-35



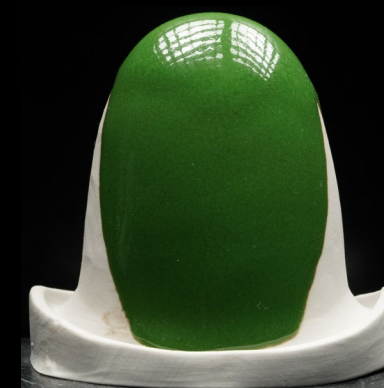
062322-36



062322-37



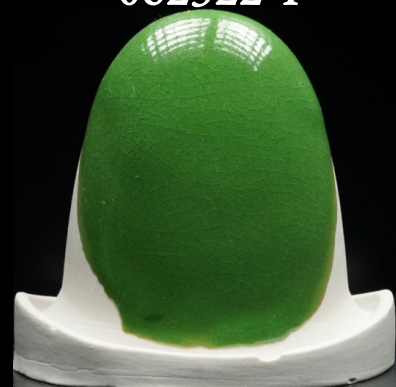
062322-X1



062322-38

1-3 Second Dip

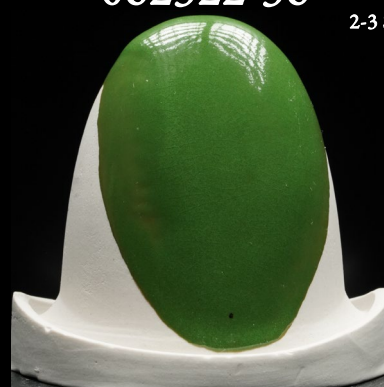
2-3 Second Dips



Original (NS)



w/Mahavir



w/Custer



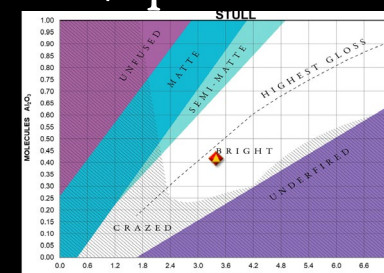
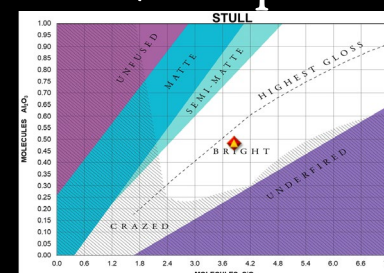
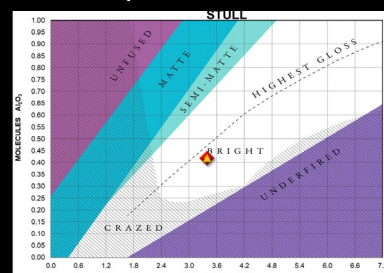
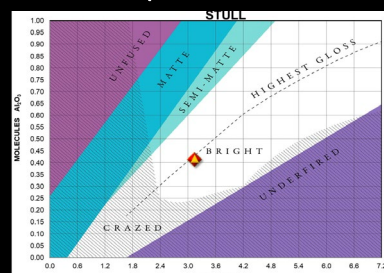
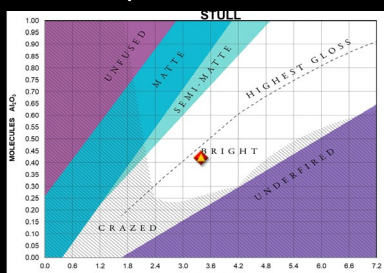
w/G200EU



w/Minspar



w/Spodumene



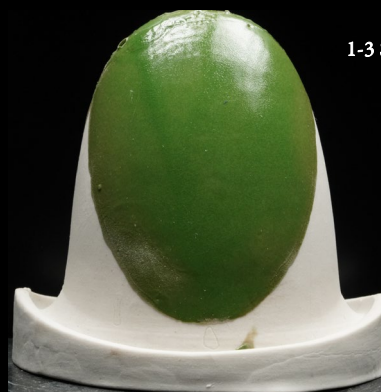
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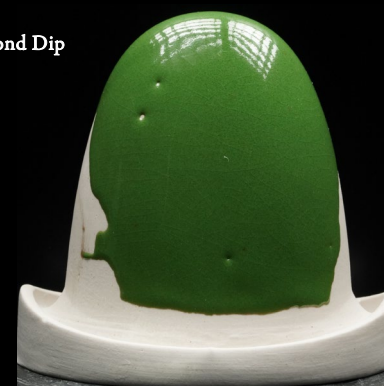
Lab 4-Alkali Metals-Reduction



062322-1



062322-40

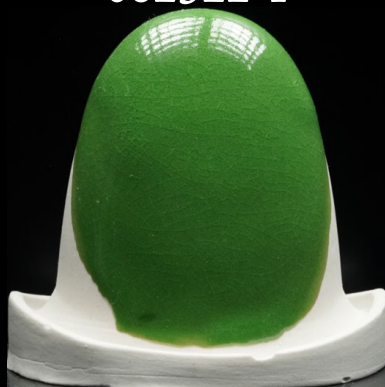


062322-41

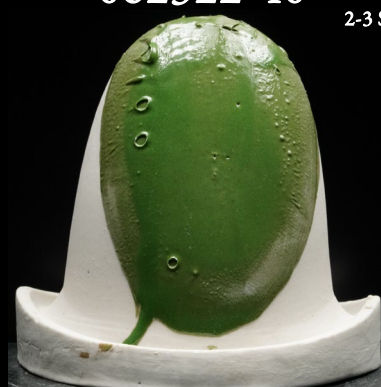


062322-42

1-3 Second Dip



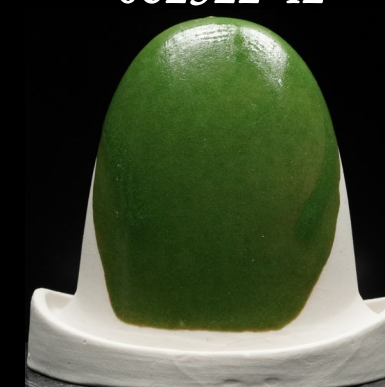
Original (NS)



w/Frit 3110

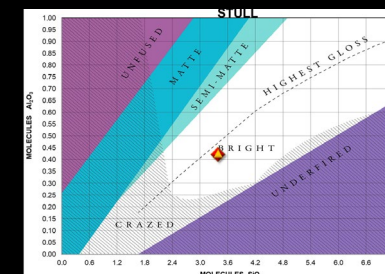
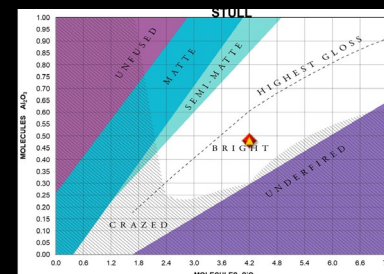
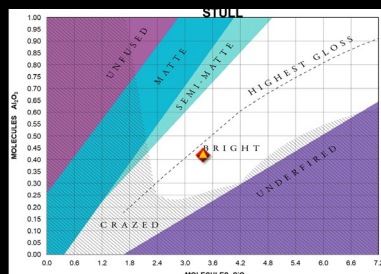
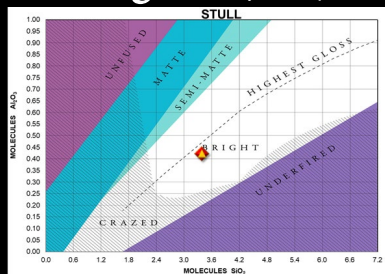


w/Cornwall



w/Lithium Carbonate

2-3 Second Dips



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Lab 4-Alkaline Earths-Oxidation



062322-1

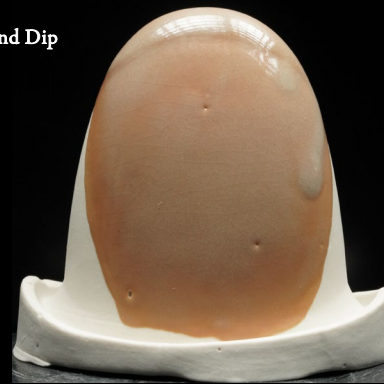


062322-43

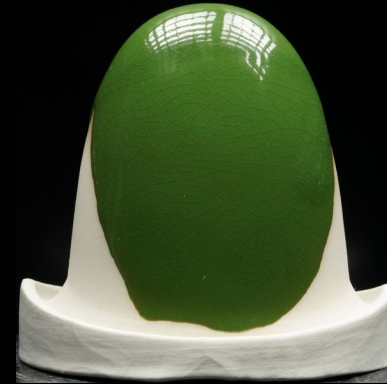


062322-44

1-3 Second Dip



062322-45



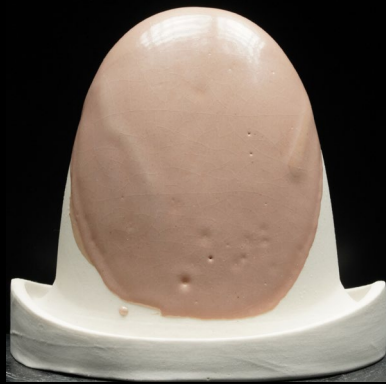
062322-46



062322-47



Original (Whiting)

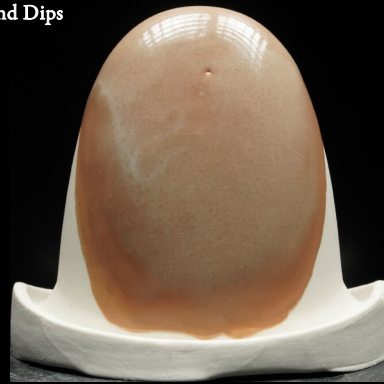


w/Talc

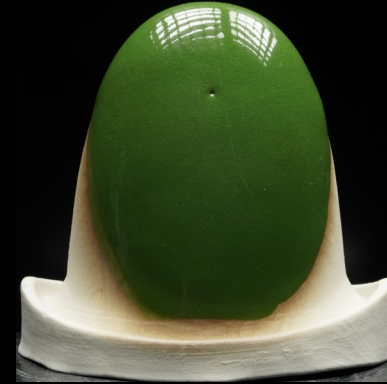


w/Mag Carb

2-3 Second Dips



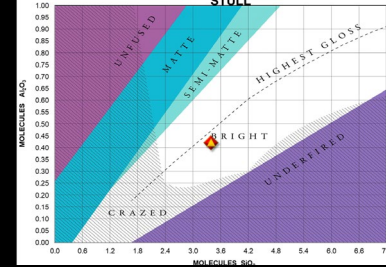
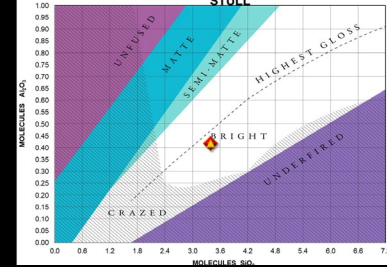
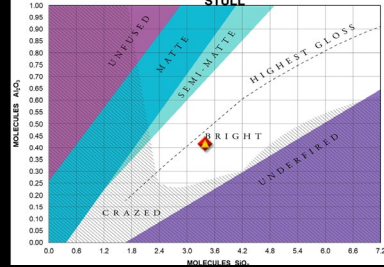
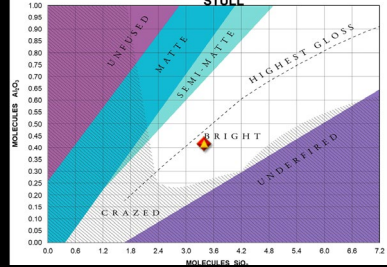
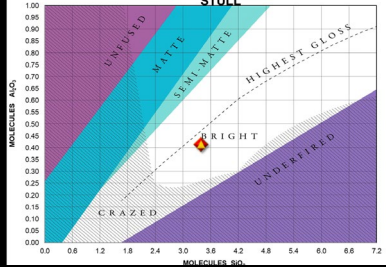
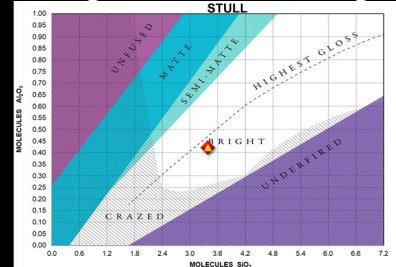
w/Dolomite



w/Wollastonite



w/Strontium Carb

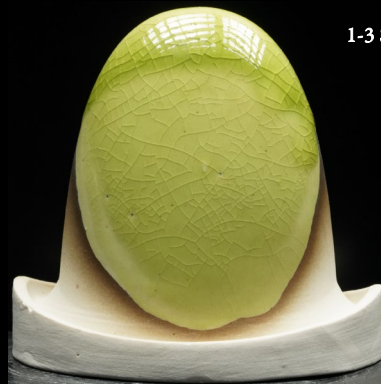


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Lab 4-Alkaline Earths-Oxidation



062322-1



062322-48



062322-49



062322-50

1-3 Second Dip

2-3 Second Dips



Original (Whiting)



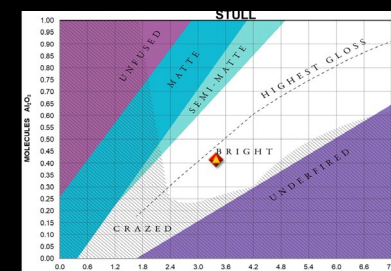
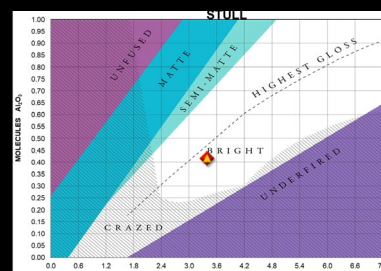
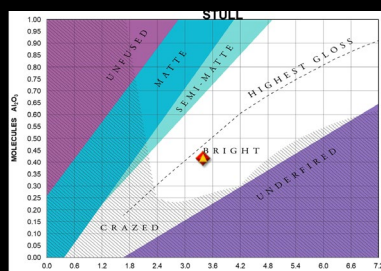
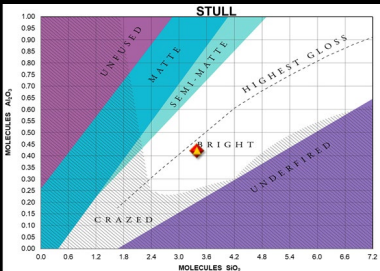
w/Barium Carb



w/Zinc Oxide



w/Bone Ash



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Lab 4-Alkaline Earths-Reduction



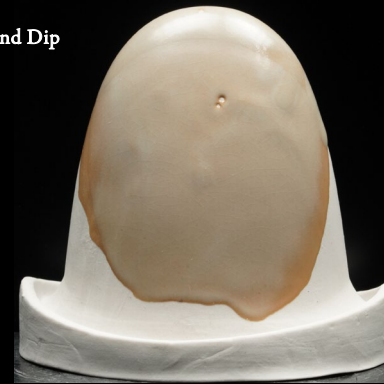
062322-1



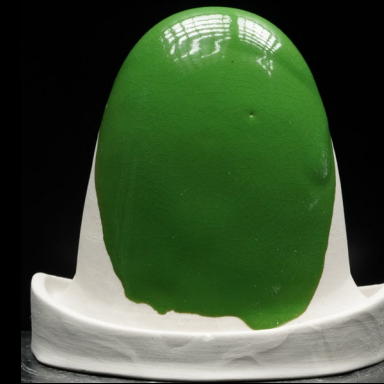
062322-43



062322-44



062322-45

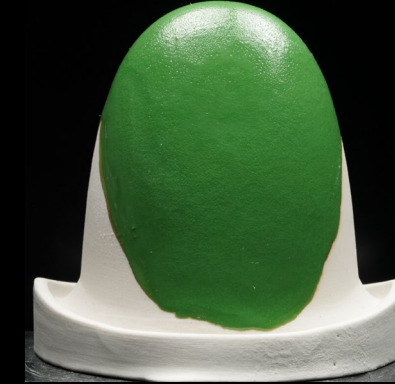
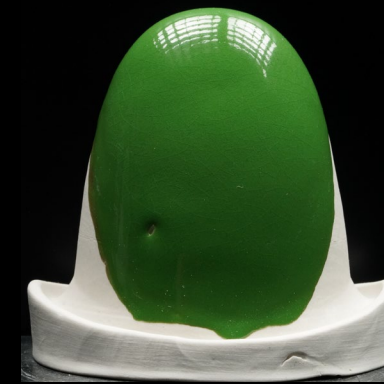
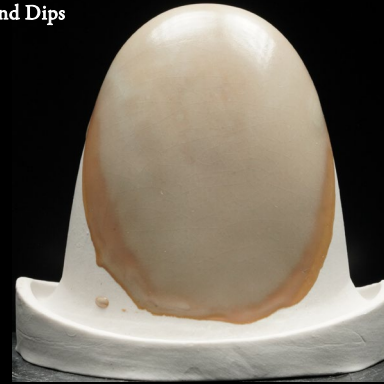


062322-46



062322-47

1-3 Second Dip



2-3 Second Dips

Original (Whiting)

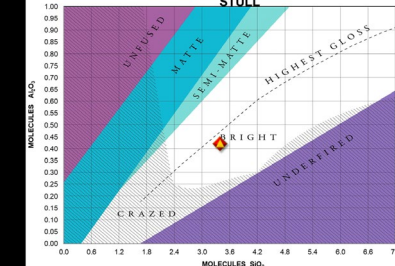
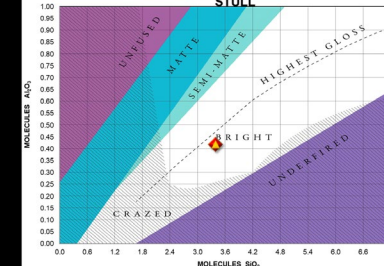
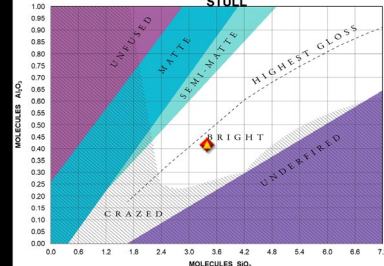
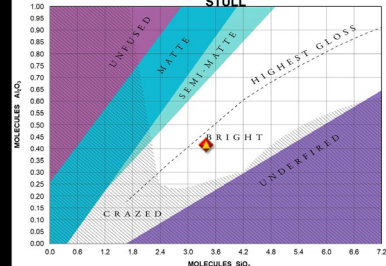
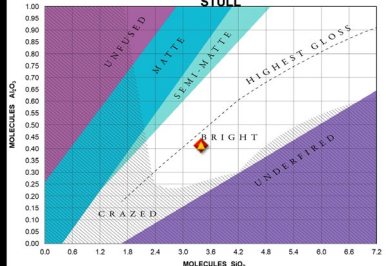
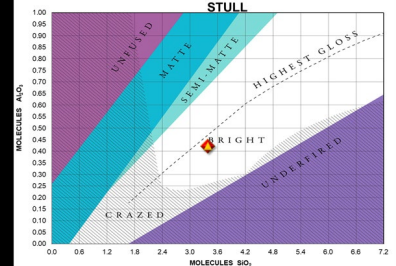
w/Talc

w/Mag Carb

w/Dolomite

w/Wollastonite

w/Strontium Carb

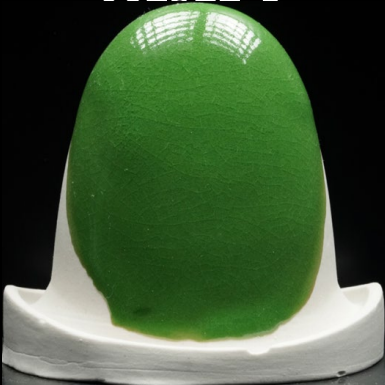


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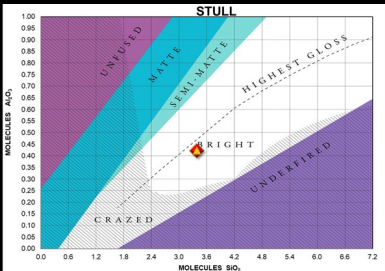
Lab 4-Alkaline Earths-Reduction



062322-1



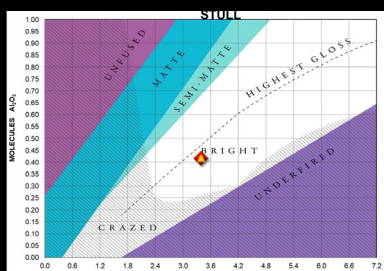
Original (Whiting)



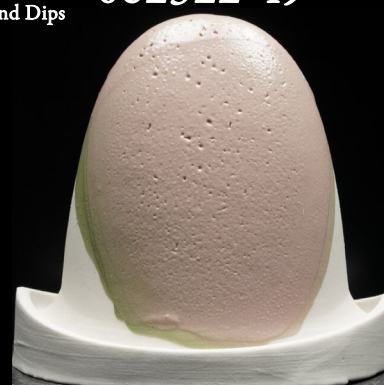
062322-48



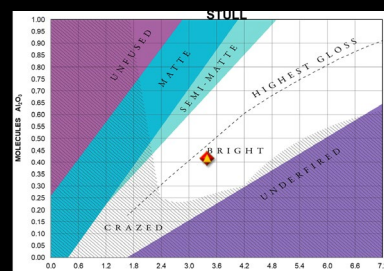
w/Barium Carb



062322-49



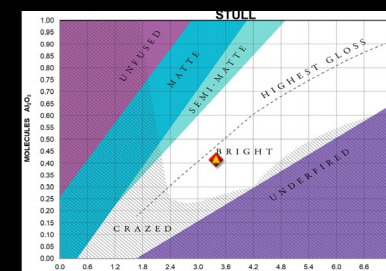
w/Zinc Oxide



062322-50



w/Bone Ash

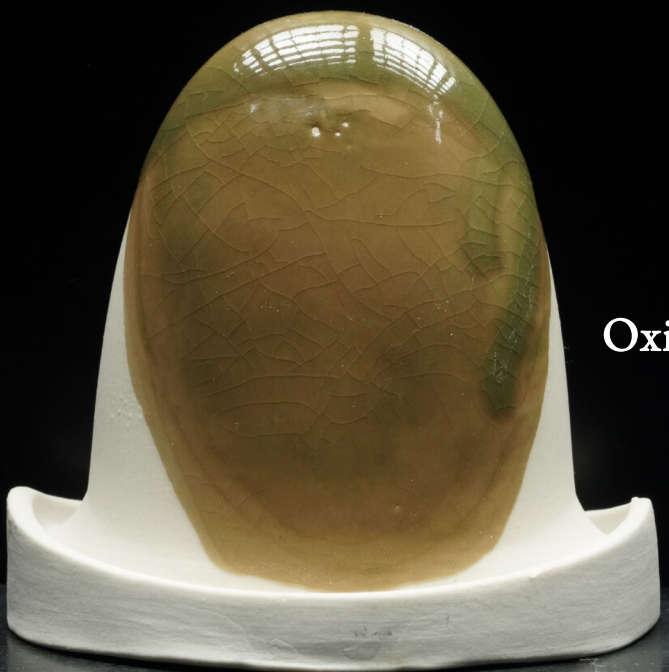


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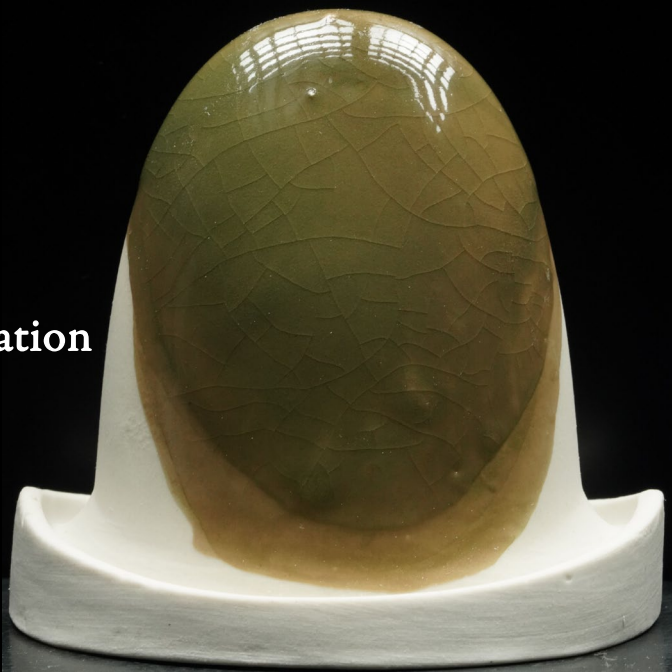
4321

Original
062322-1

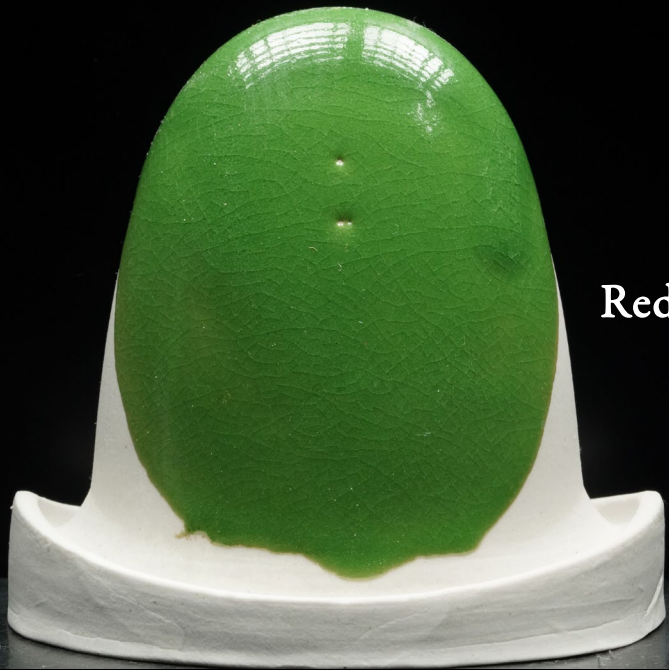
Neph Sy	40.00
Whiting	20.00
EPK	10.00
Flint	30.00
Chrome Oxide	1.00
Water	60



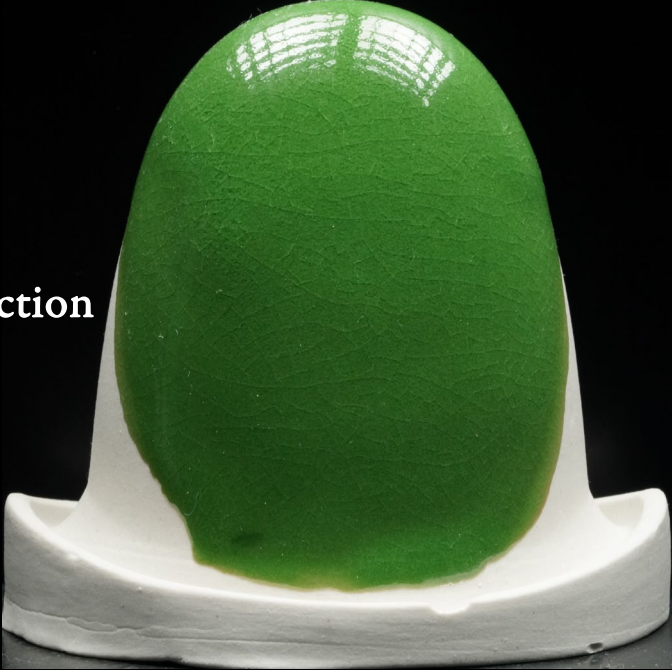
Oxidation



1-3 Second Dip



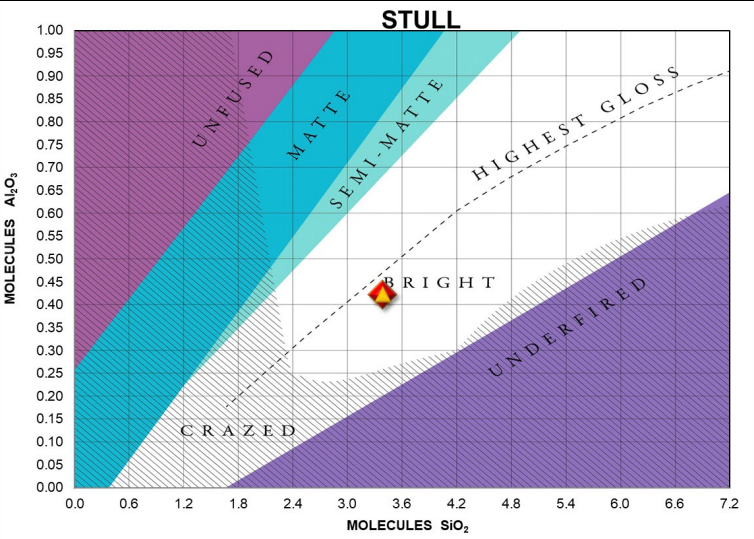
Reduction



2-3 Second Dips

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.99 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 7.99 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

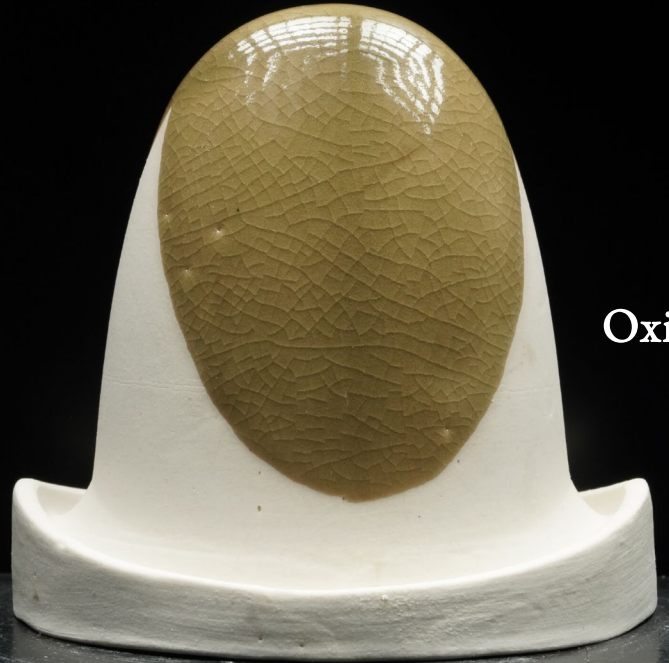


Ceramic
Materials
Workshop

4321

Chemical Match
Mahavir Feldspar
062322-35

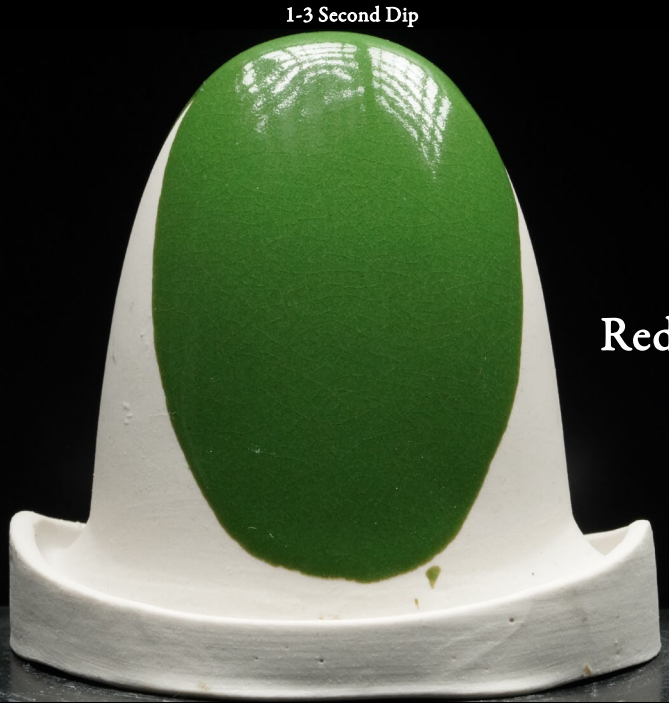
Mahavir	47.77
Whiting	19.90
EPK	10.95
Flint	21.38
Chrome Oxide	1.00
Water	60



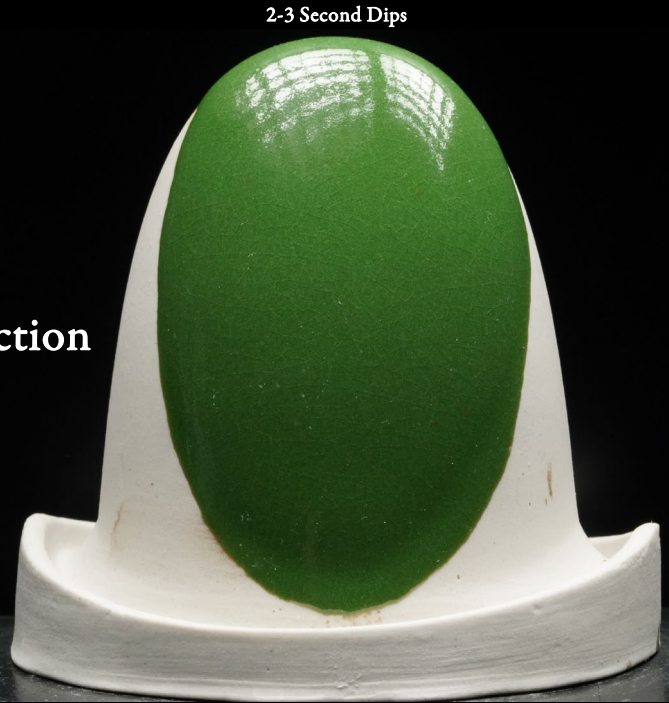
Oxidation



2-3 Second Dips

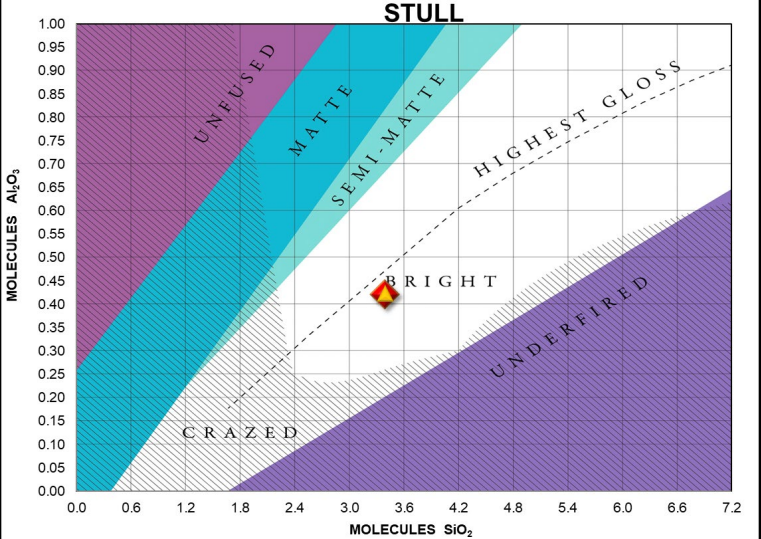


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.08	K ₂ O 0.20	MgO 0.01	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 8.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.08	K ₂ O 0.20	MgO 0.01	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

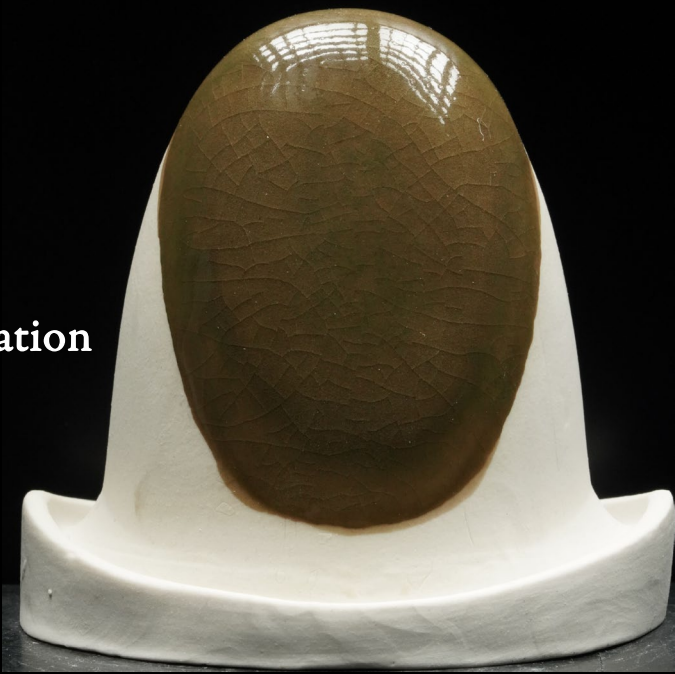
4321

Chemical Match
Custer Feldspar
062322-36

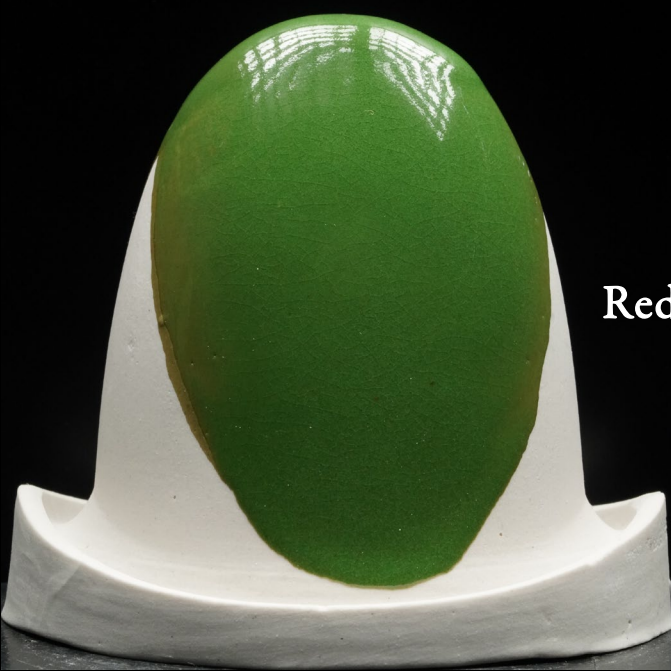
Custer 2022	58.04
Whiting	19.47
EPK	7.90
Flint	14.60
Chrome Oxide	1.01
Water	60



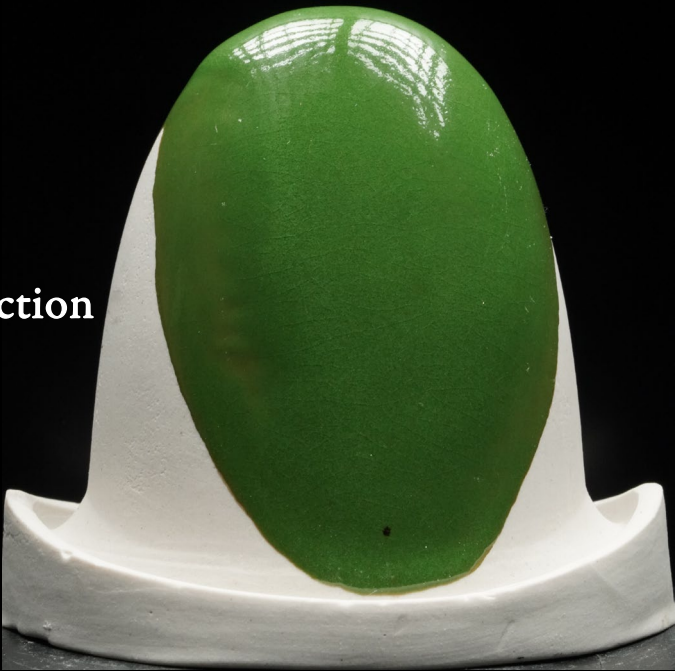
1-3 Second Dip



2-3 Second Dips



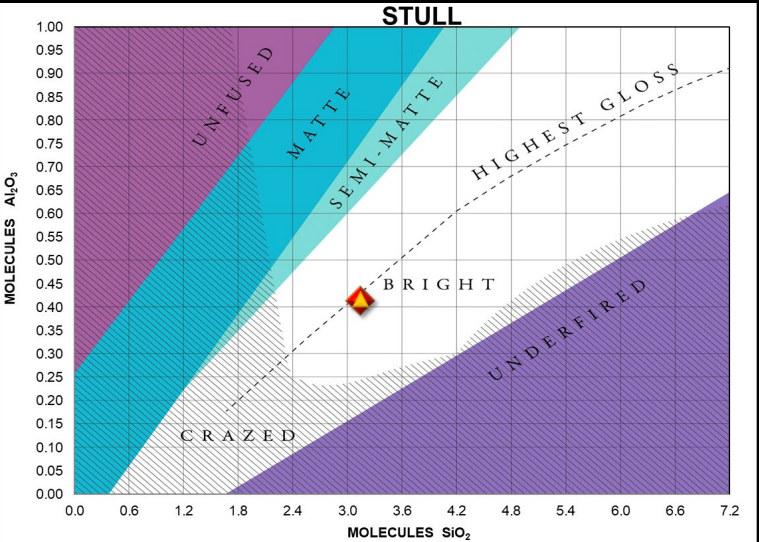
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.52 : 1		Alkali Metals 0.34		Alkaline Earths 0.66	
SiO ₂ 3.14	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.14	K ₂ O 0.20	MgO 0.00	CaO 0.65
B ₂ O ₃	Al ₂ O ₃ 0.41	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 7.52 : 1		Alkali Metals 0.34		Alkaline Earths 0.66	
SiO ₂ 3.14	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.14	K ₂ O 0.20	MgO 0.00	CaO 0.65
B ₂ O ₃	Al ₂ O ₃ 0.41	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

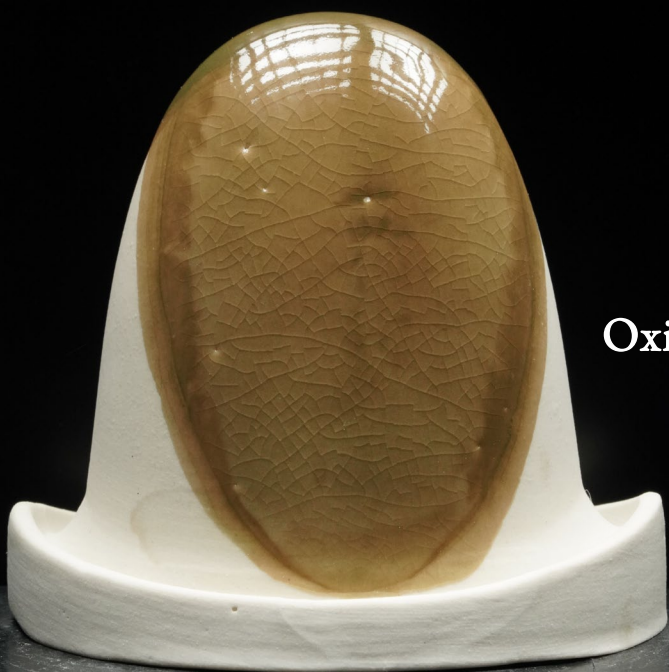
4321

Chemical Match

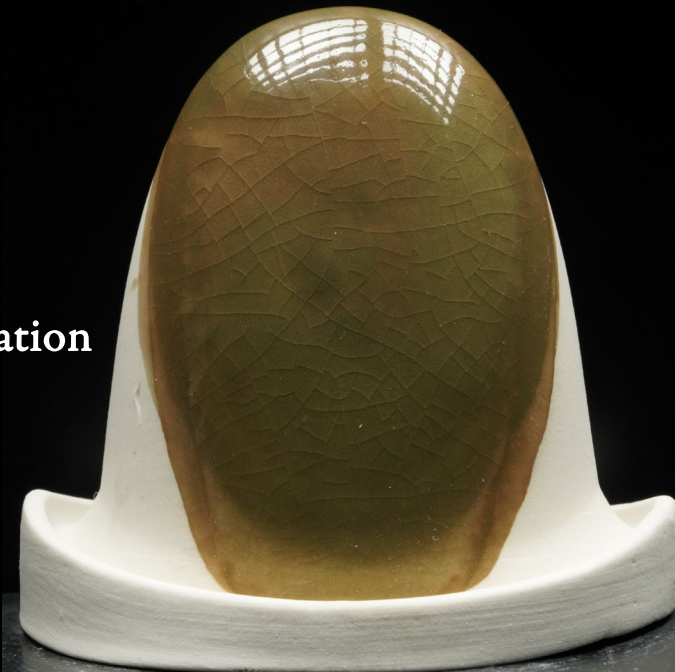
G200 EU Feldspar

062322-37

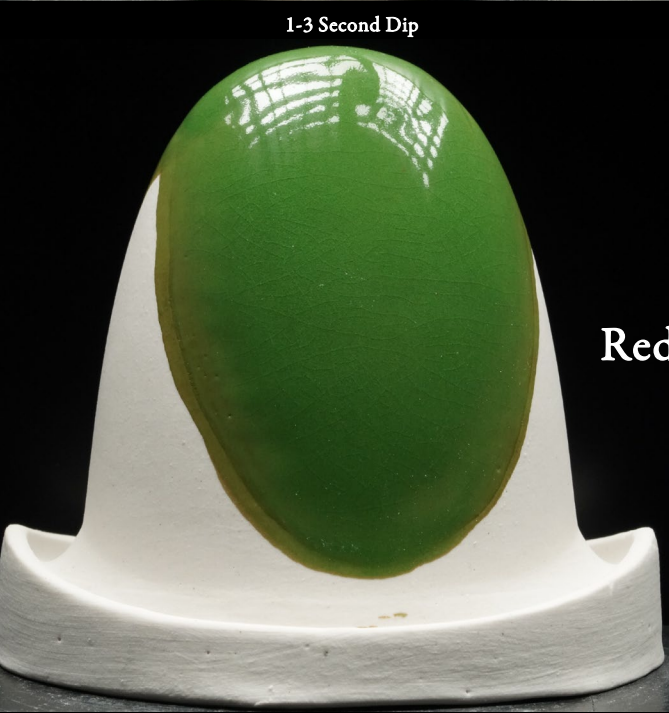
G200 EU	55.17
Whiting	19.60
EPK	8.06
Flint	17.18
Chrome Oxide	1.01
Water	60



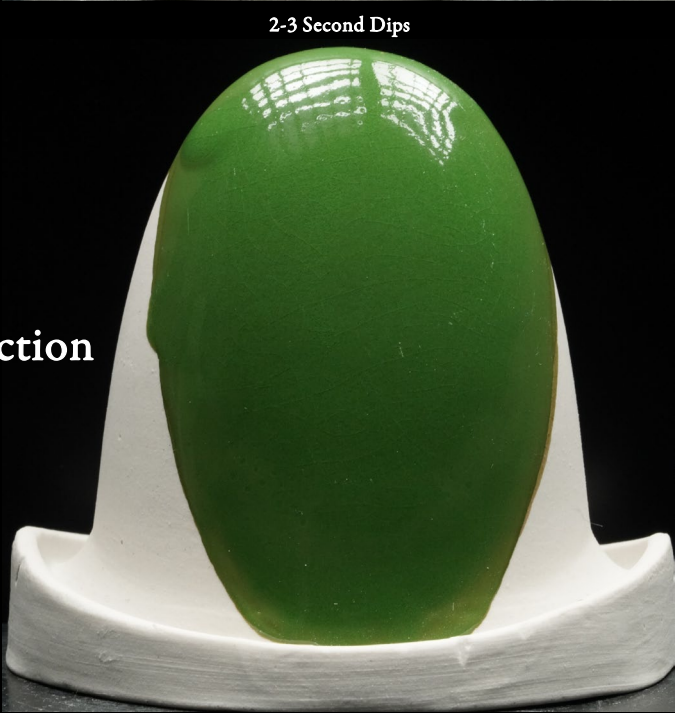
Oxidation



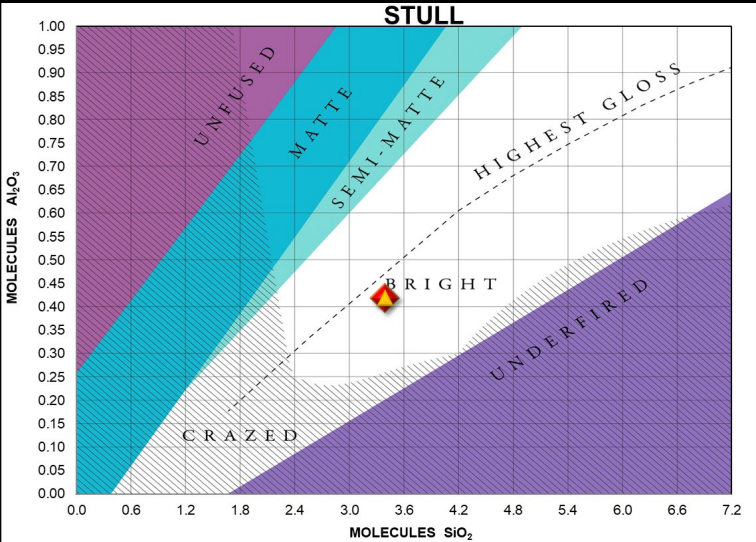
2-3 Second Dips



Reduction



SiO ₂ :Al ₂ O ₃ Ratio 8.06 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.06	K ₂ O 0.22	MgO 0.01	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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

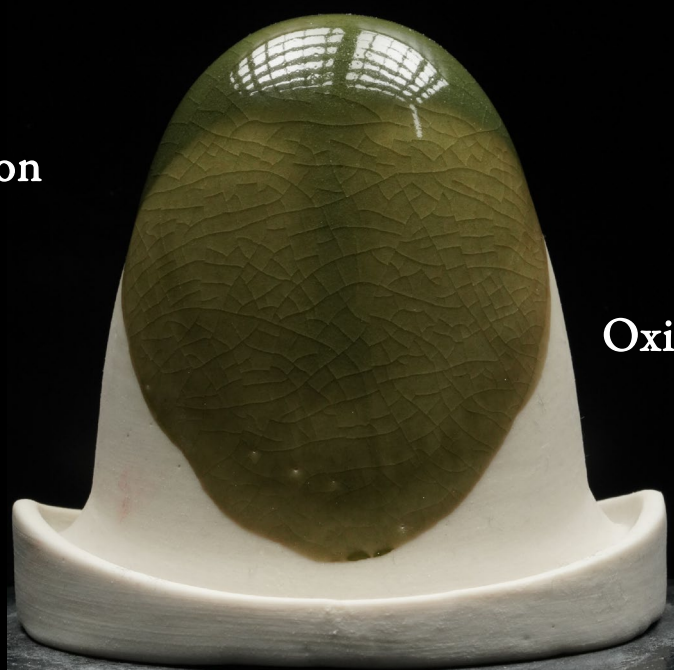


SiO ₂ :Al ₂ O ₃ Ratio 8.06 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.06	K ₂ O 0.22	MgO 0.01	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

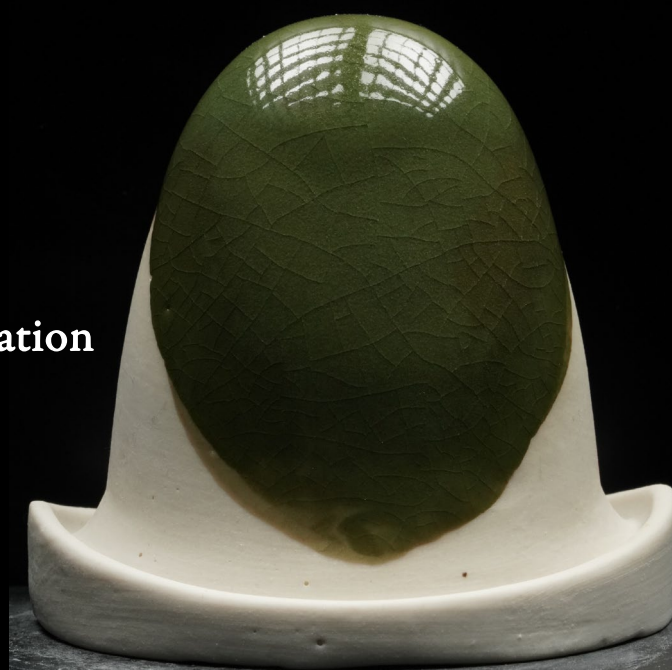
4321

Weight Substitution
Minspar Feldspar
062322-X1

Minspar	59.50
Whiting	19.28
EPK	4.08
Flint	17.14
Chrome Oxide	1.00
Water	60

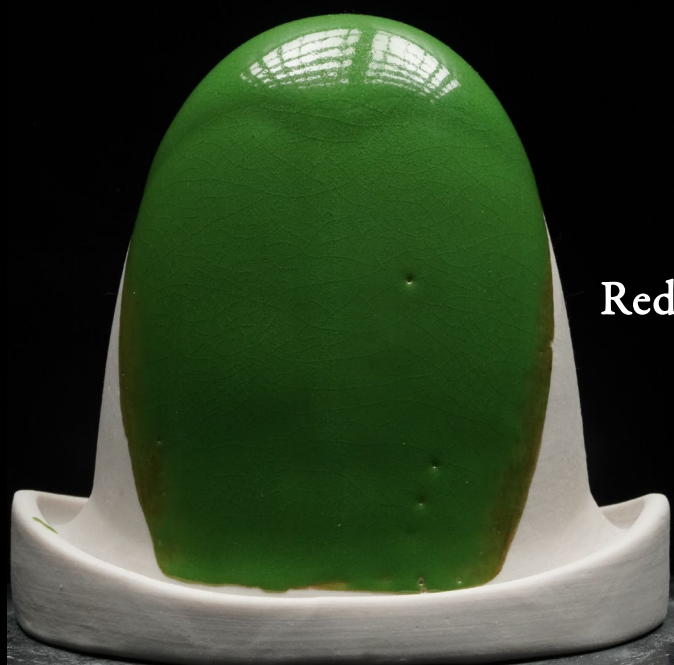


1-3 Second Dip

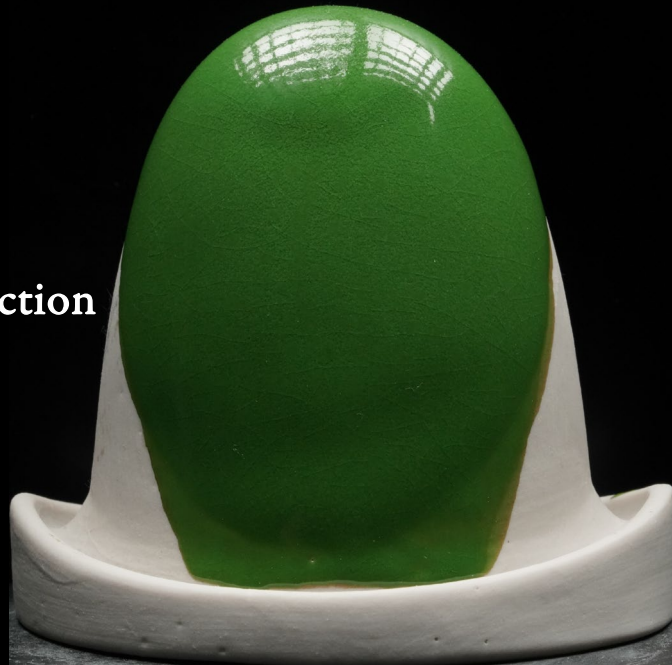


2-3 Second Dips

Oxidation

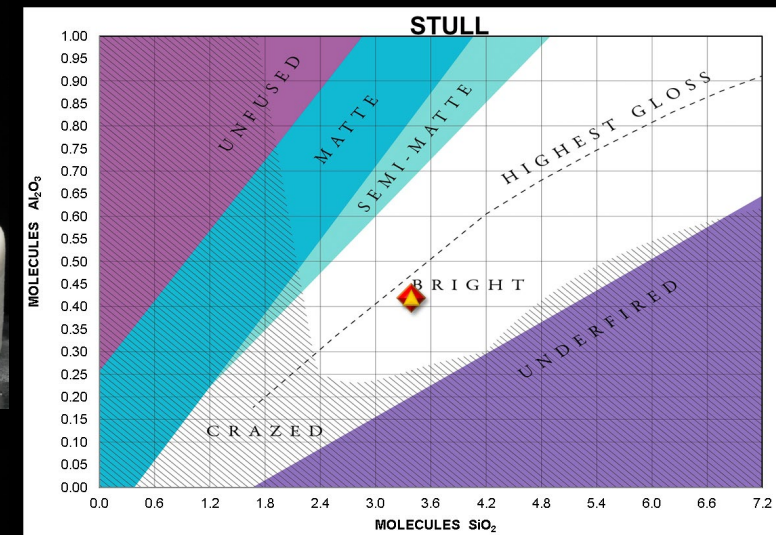


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.05 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.20	K ₂ O 0.09	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO 0.00	BaO 0.00
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 8.05 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.20	K ₂ O 0.09	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO 0.00	BaO 0.00
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



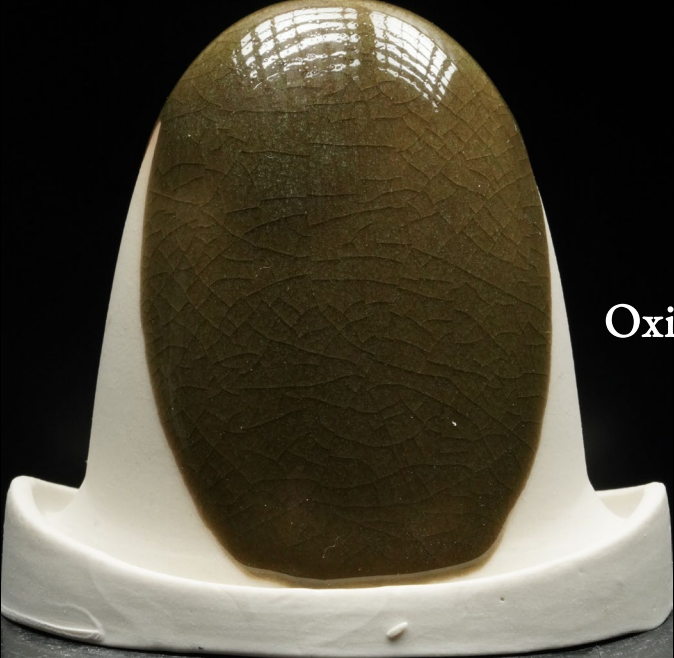
Ceramic
Materials
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ceramicmaterialsworkshop.com

4321

Chemical Match
Spodumene
062322-38

Spodumene	33.51
Whiting	21.06
EPK	10.53
Flint	34.90
Chrome Oxide	1.01
Water	60



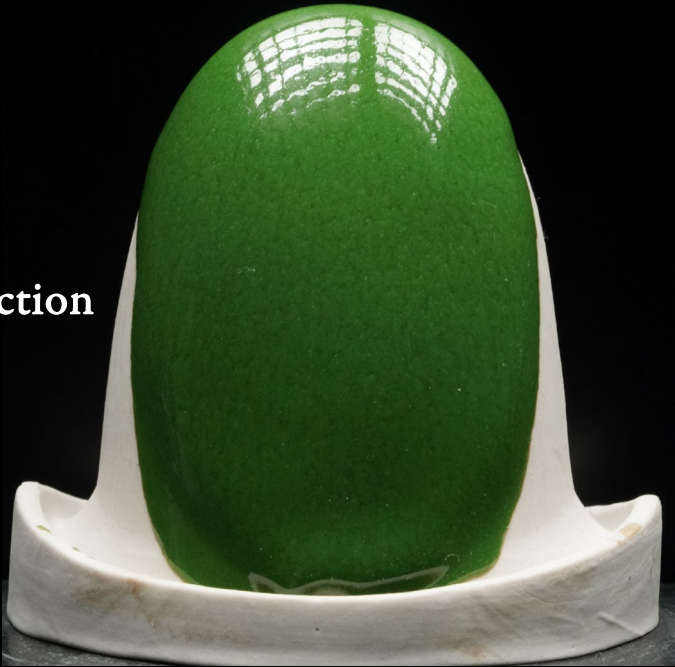
1-3 Second Dip



2-3 Second Dips



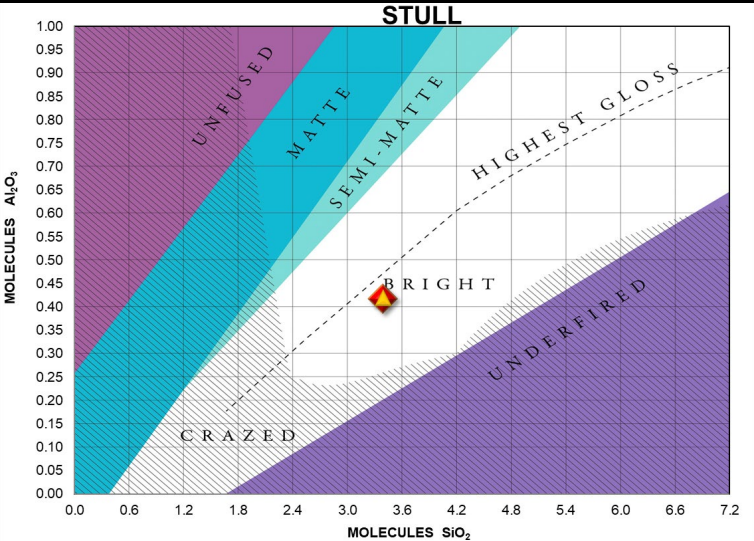
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.07 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O 0.28	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 8.07 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O 0.28	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

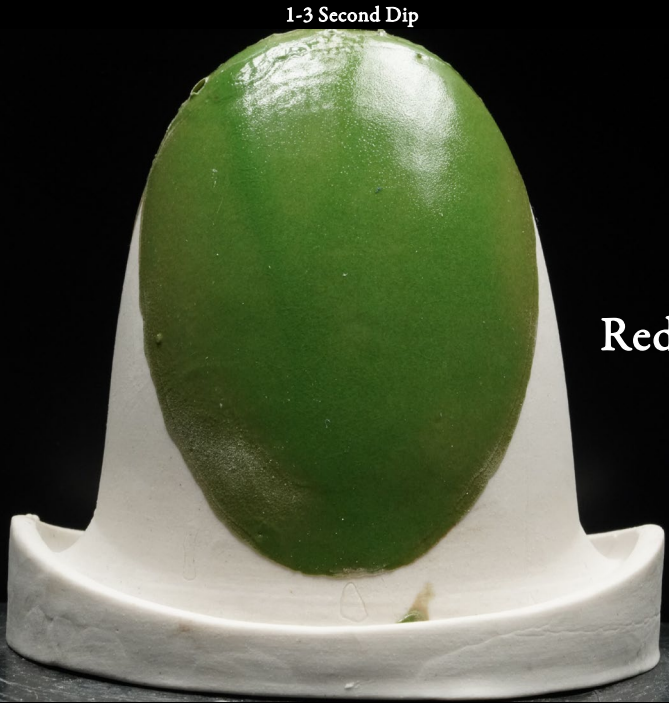
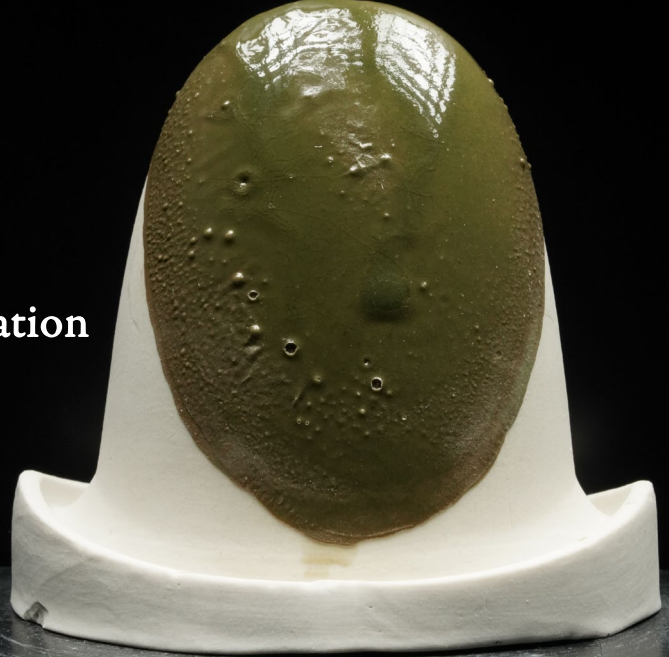
4321

Chemical Match
Frit 3110
062322-40

3110	29.66
Whiting	16.53
EPK	31.04
Flint	22.77
Chrome Oxide	1.01
Water	60



Oxidation

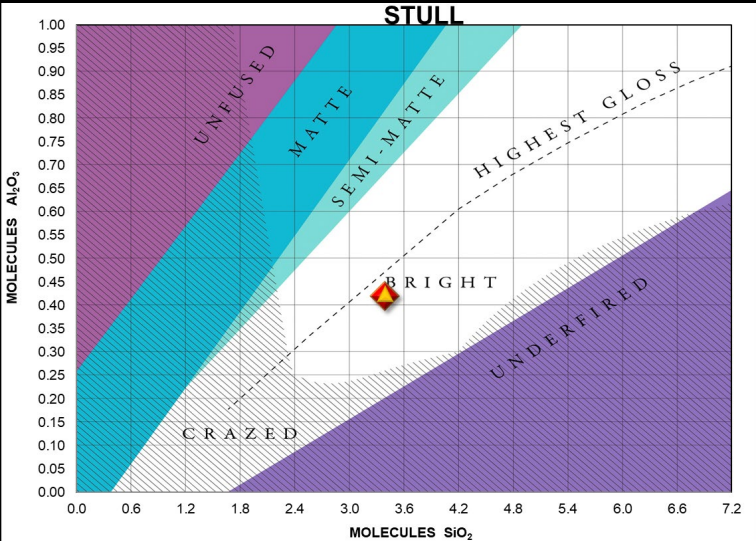


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.97 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.43	Na ₂ O 0.26	K ₂ O 0.03	MgO 0.00	CaO 0.69
B ₂ O ₃ 0.04	Al ₂ O ₃ 0.42	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 7.97 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.43	Na ₂ O 0.26	K ₂ O 0.03	MgO 0.00	CaO 0.69
B ₂ O ₃ 0.04	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

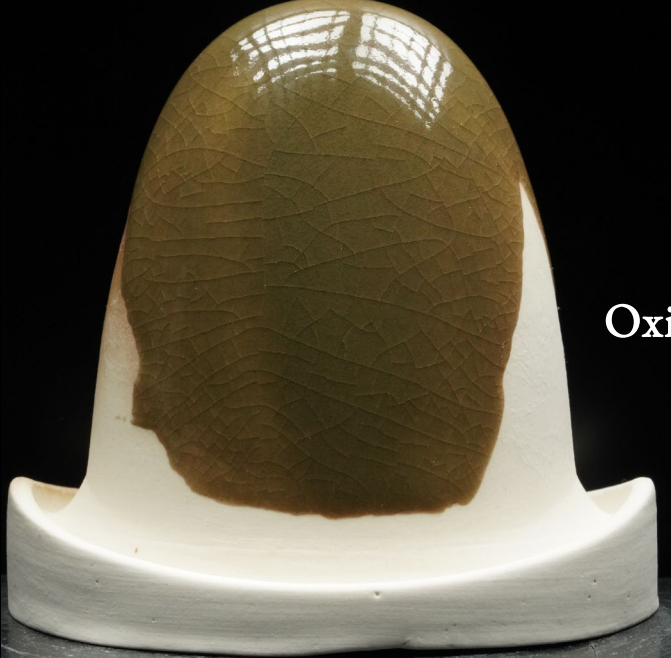


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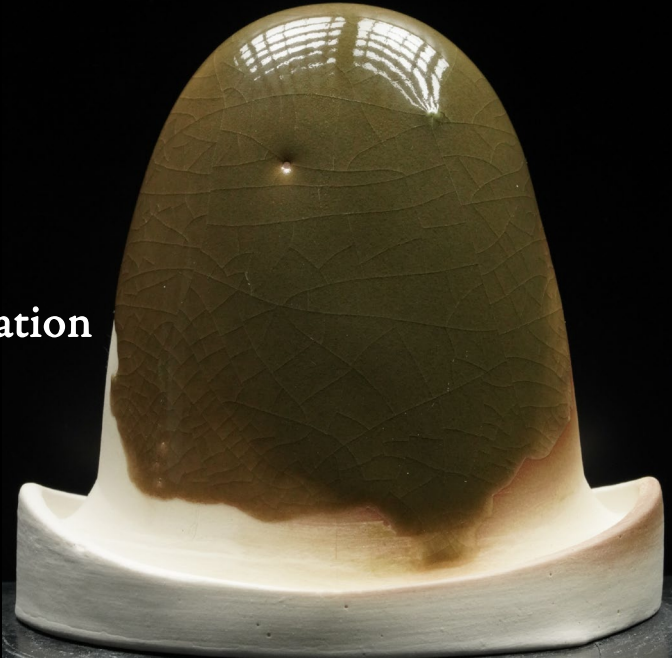
4321

Chemical Match
Cornwall
062322-41

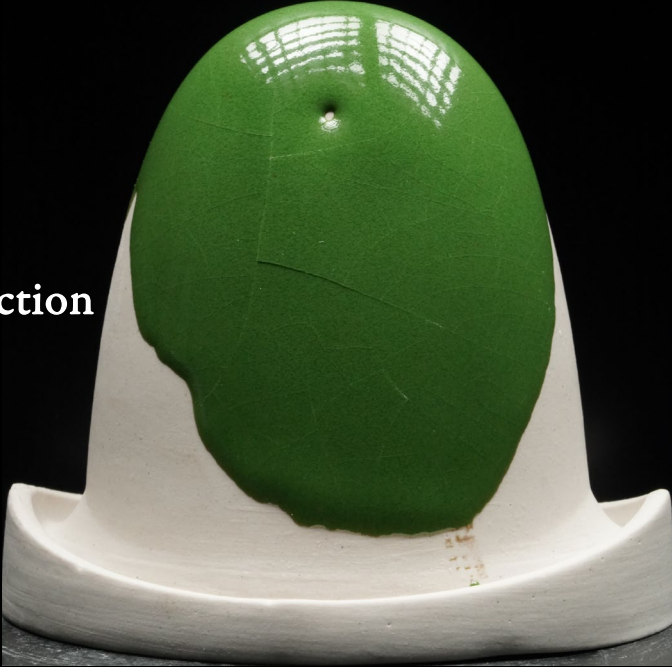
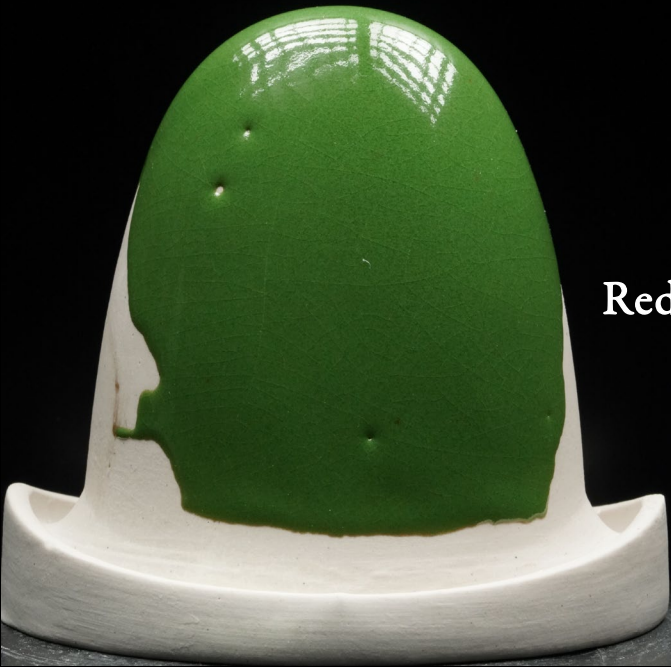
Cornwall	83.16
Whiting	14.83
EPK	
Flint	
Bentonite	2.00
Chrome Oxide	1.00
Water	60



1-3 Second Dip



2-3 Second Dips

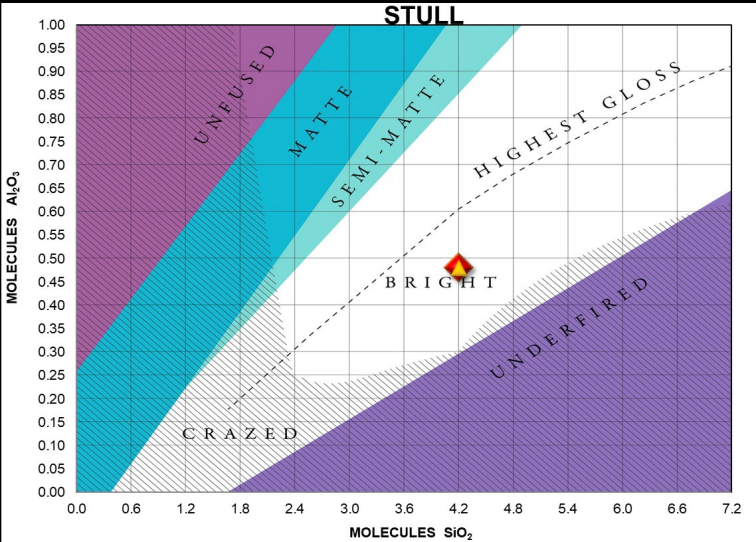


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.85 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 4.16	Collective "Al ₂ O ₃ " 0.47	Na ₂ O 0.16	K ₂ O 0.13	MgO 0.01	CaO 0.68
B ₂ O ₃	Al ₂ O ₃ 0.47	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃ 0.03	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.73 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 4.20	Collective "Al ₂ O ₃ " 0.48	Na ₂ O 0.16	K ₂ O 0.13	MgO 0.01	CaO 0.68
B ₂ O ₃	Al ₂ O ₃ 0.48	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃ 0.03	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
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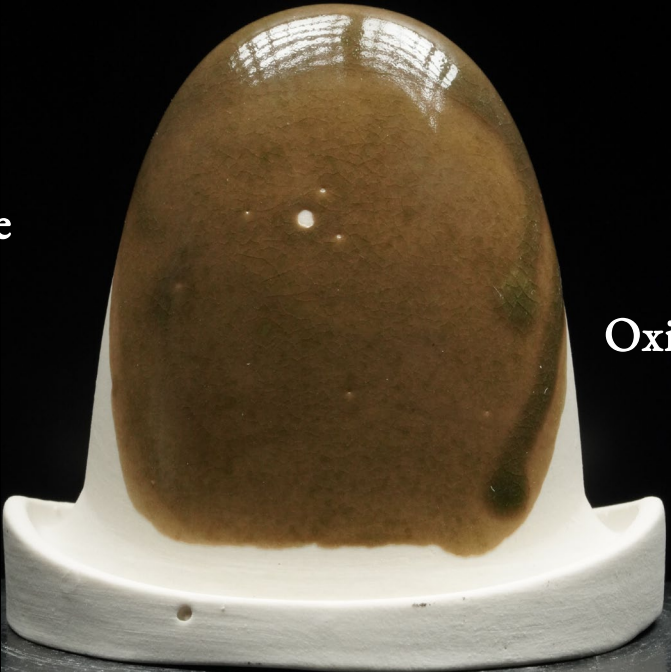
4321

Chemical Match

Lithium Carbonate

062322-42

Lithium Carb	5.86
Whiting	19.37
EPK	33.54
Flint	41.23
Chrome Oxide	1.01
Water	60



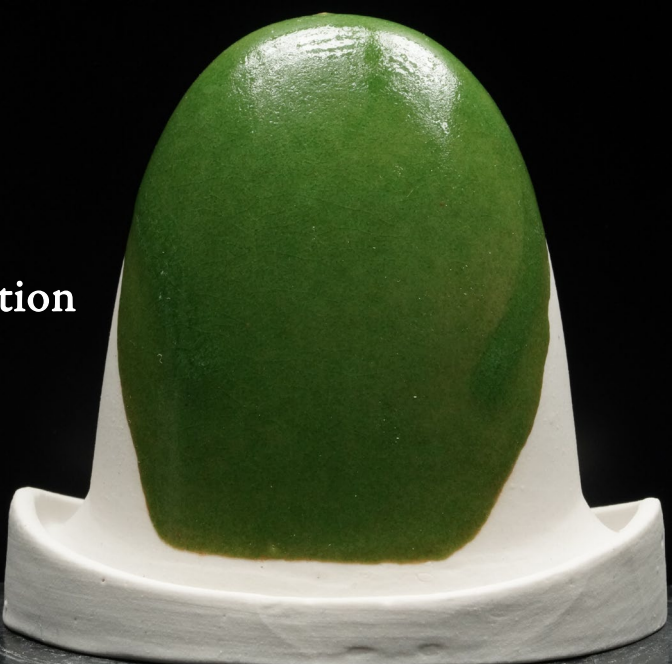
1-3 Second Dip



2-3 Second Dips



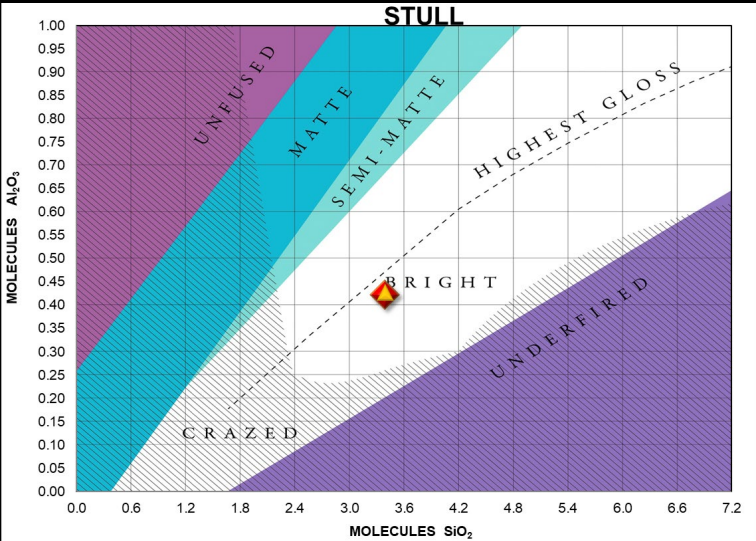
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.92 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.43	Na ₂ O	K ₂ O 0.01	MgO 0.01	CaO 0.69
B ₂ O ₃	Al ₂ O ₃ 0.42	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 7.92 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.43	Na ₂ O	K ₂ O 0.01	MgO 0.01	CaO 0.69
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

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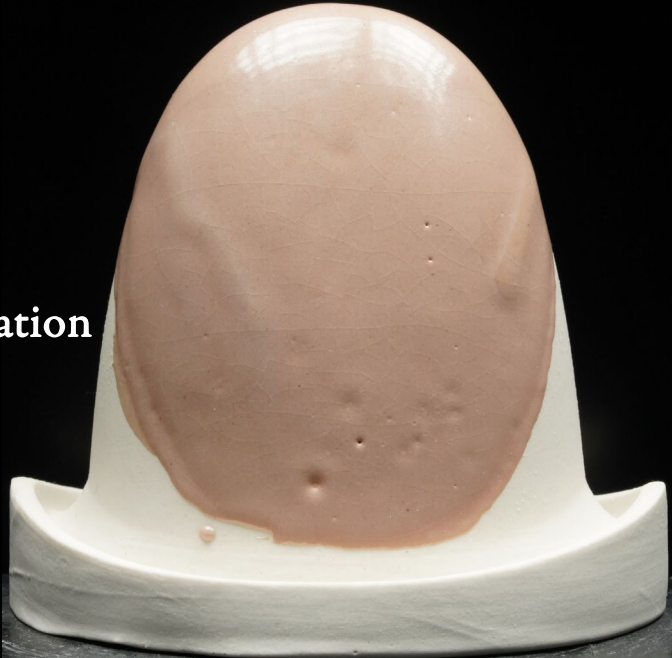
Chemical Match
Talc

062322-43

Neph Sy	43.06
Talc	27.41
EPK	10.77
Flint	18.76
Chrome Oxide	1.01
Water	60



1-3 Second Dip



2-3 Second Dips



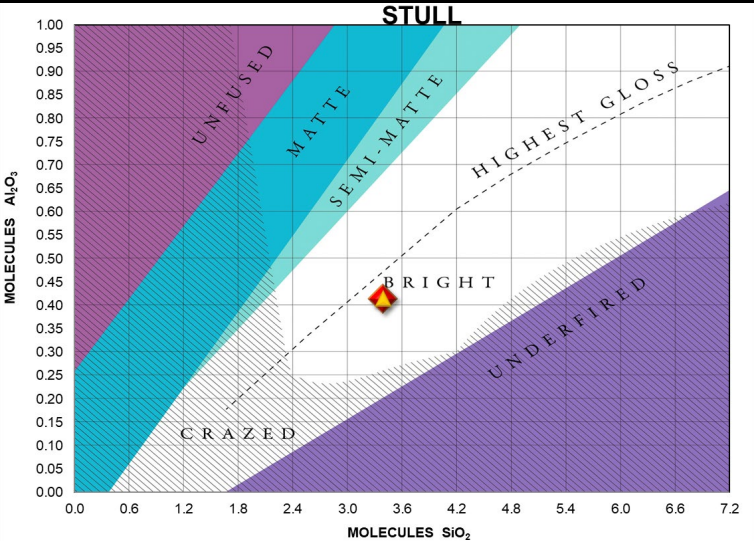
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.14 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.22	K ₂ O 0.07	MgO 0.63	CaO 0.06
B ₂ O ₃	Al ₂ O ₃ 0.41	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



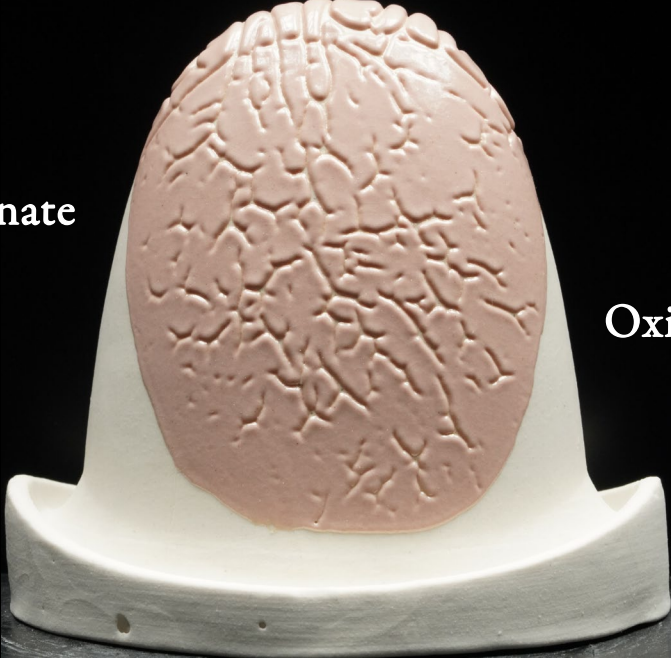
EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.14 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.22	K ₂ O 0.07	MgO 0.63	CaO 0.06
B ₂ O ₃	Al ₂ O ₃ 0.41	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

4321

Chemical Match
Magnesium Carbonate
062322-44

Neph Sy	40.99
Mag Carbonate	17.19
EPK	10.25
Flint	31.58
Chrome Oxide	1.01
Water	60



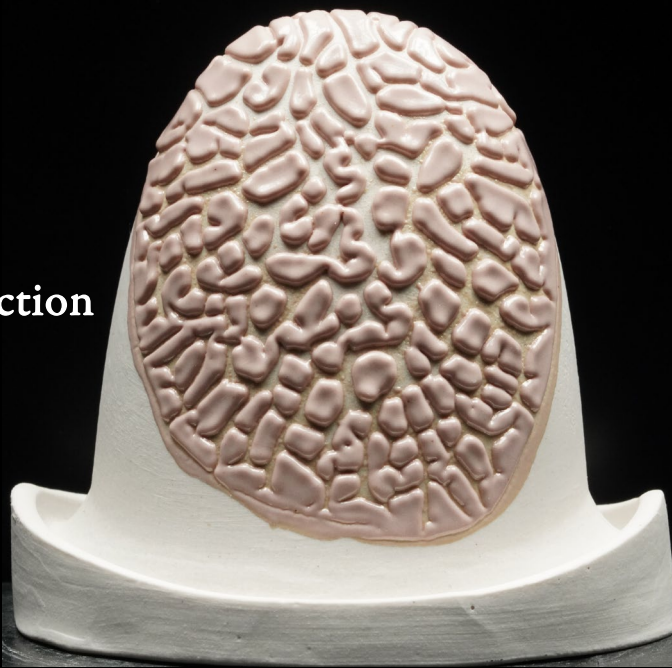
1-3 Second Dip



2-3 Second Dips



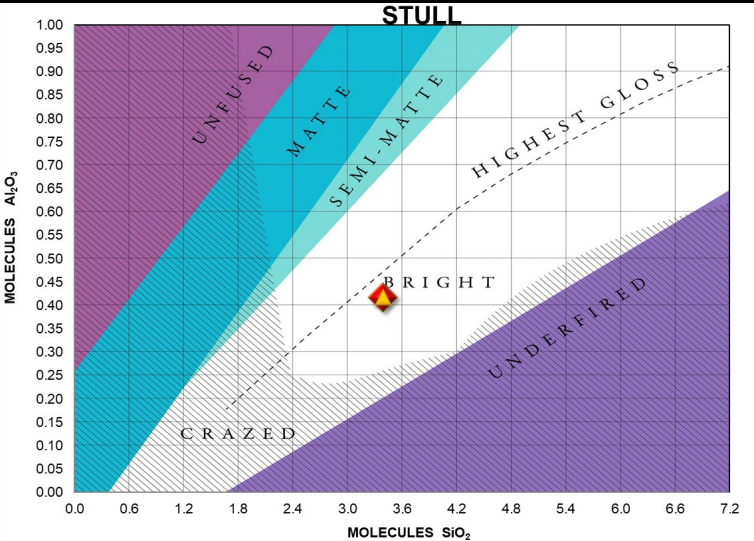
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.09 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.69	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	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 8.09 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.69	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
Workshop

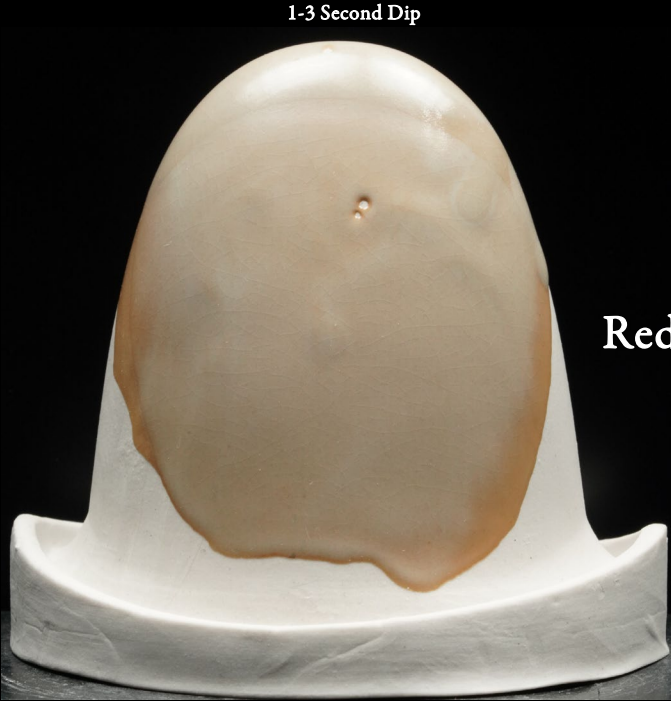
4321

Chemical Match
Dolomite
062322-45

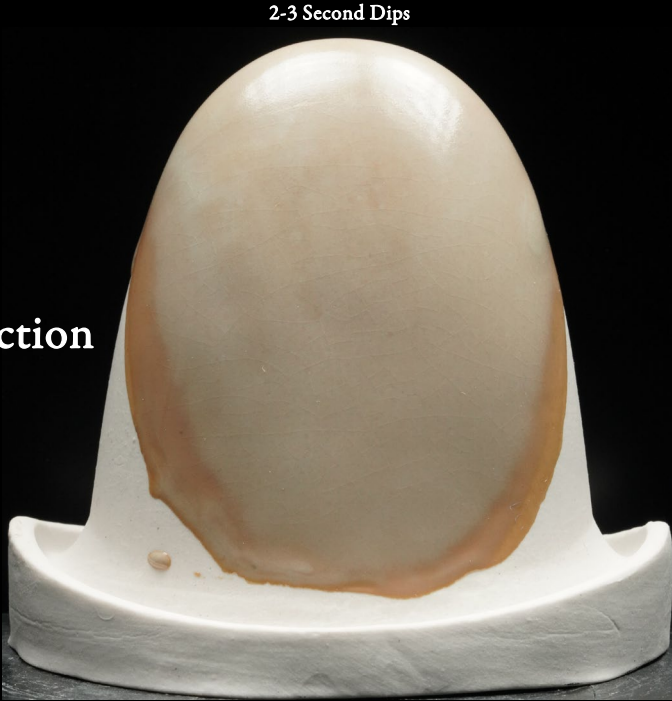
Neph Sy	40.22
Dolomite	18.85
EPK	10.06
Flint	30.87
Chrome Oxide	1.01
Water	60



Oxidation

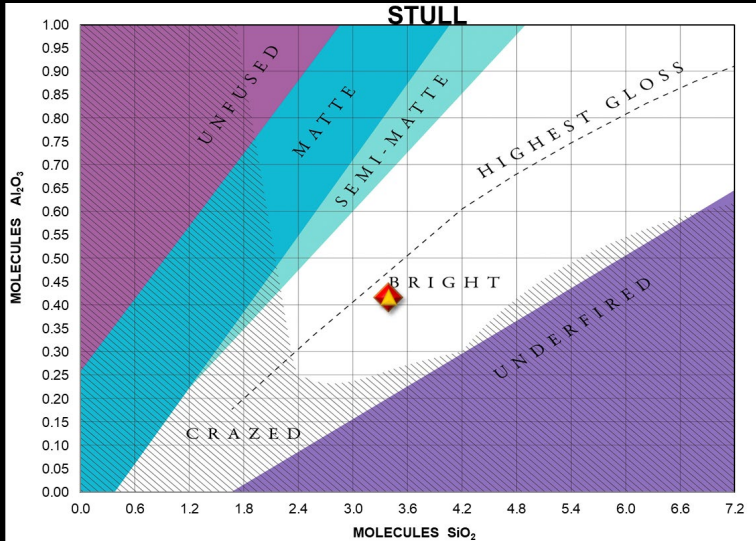


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.09 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.35	CaO 0.35
B ₂ O ₃	Al ₂ O ₃ 0.42	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 8.09 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.35	CaO 0.35
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

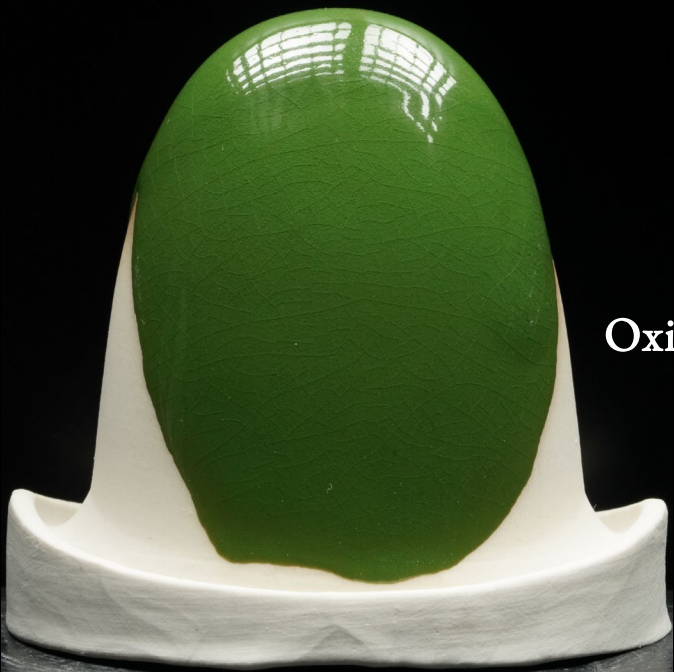


Ceramic
Materials
Workshop

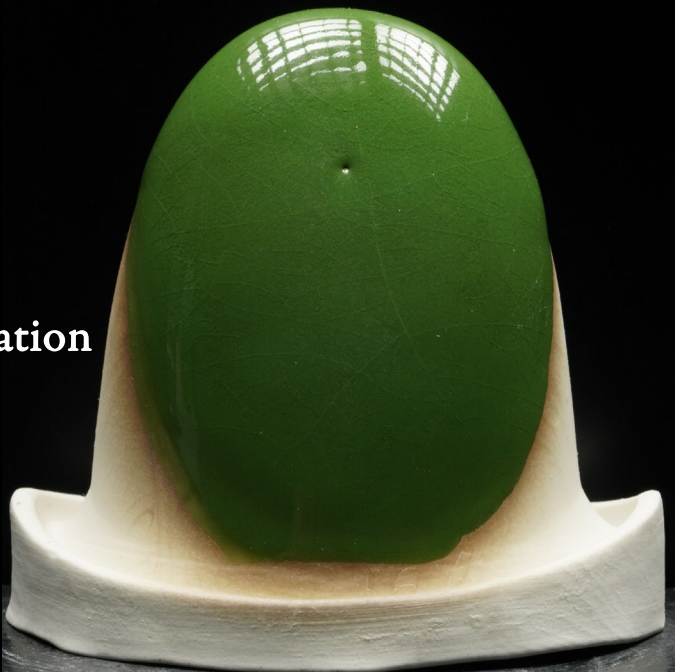
4321

Chemical Match
Wollastonite
062322-46

Neph Sy	42.79
Wollastonite	26.92
EPK	10.70
Flint	19.59
Chrome Oxide	1.01
Water	60



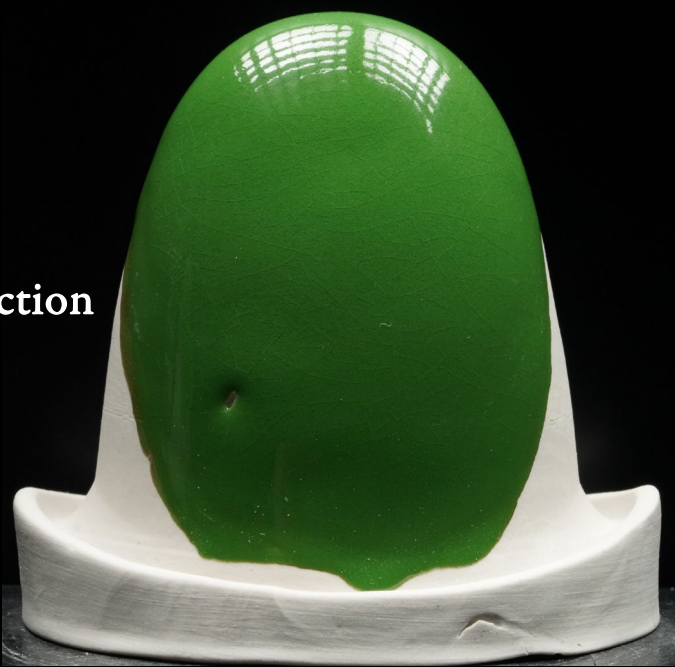
1-3 Second Dip



2-3 Second Dips



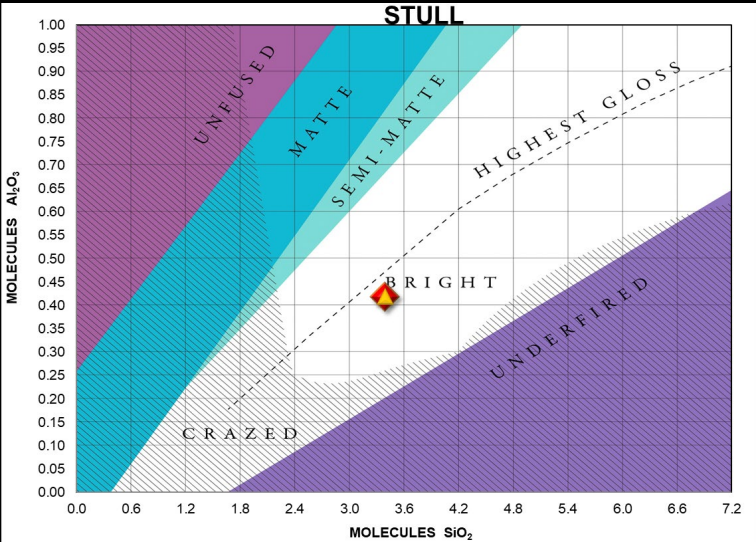
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.06 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.03	CaO 0.67
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	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 8.06 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.07	MgO 0.03	CaO 0.67
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
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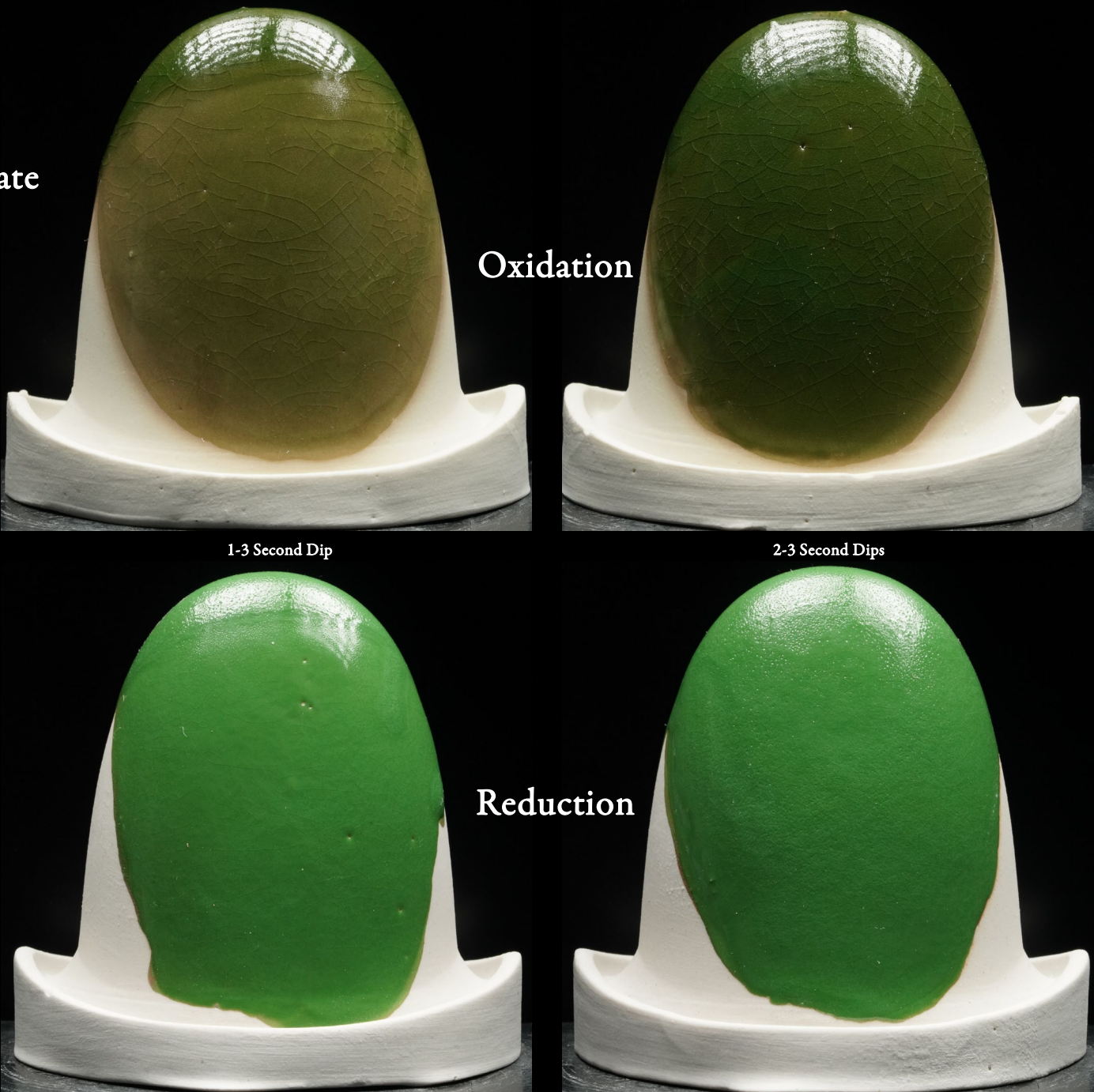
4321

Chemical Match

Strontium Carbonate

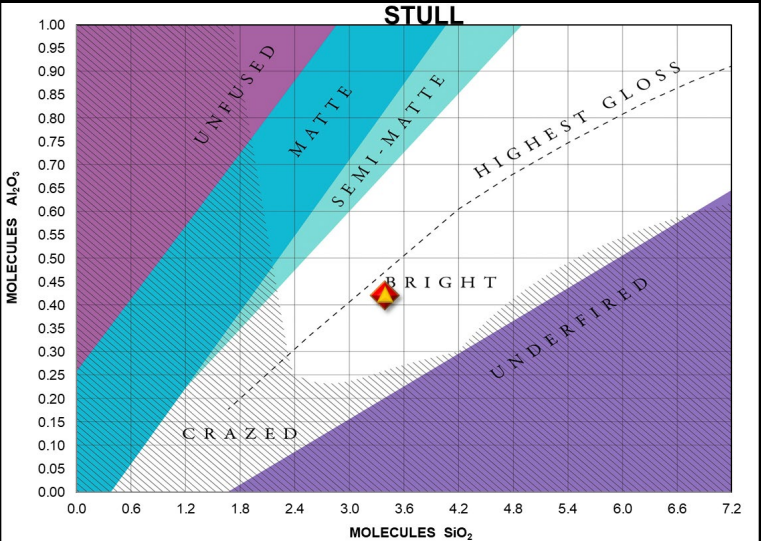
062322-47

Neph Sy	35.98
Strontium Carb	27.08
EPK	9.42
Flint	27.53
Chrome Oxide	1.01
Water	60



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO 0.69	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 8.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO 0.69	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃ 0.03	ZrO ₂	P ₂ O ₅		MnO ₂	CoO

4321

Chemical Match
Barium Carbonate
062322-48

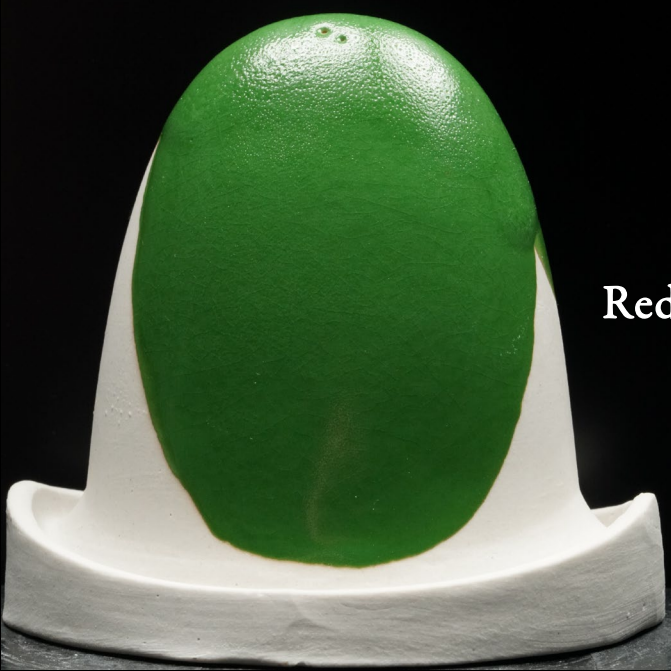
Neph Sy	33.14
Barium Carb	33.19
EPK	8.28
Flint	25.39
Chrome Oxide	1.01
Water	60



1-3 Second Dip



2-3 Second Dips



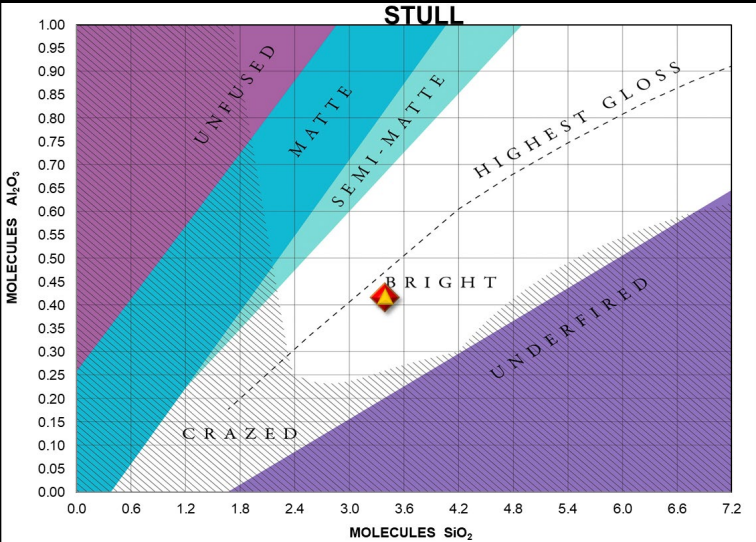
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.08 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO 0.69
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 8.08 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO 0.69
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃ 0.03	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
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Chemical Match

Zinc Oxide

062322-49

Neph Sy	41.06
Zinc Oxide	17.03
EPK	10.27
Flint	31.64
Chrome Oxide	1.01
Water	60



1-3 Second Dip



2-3 Second Dips



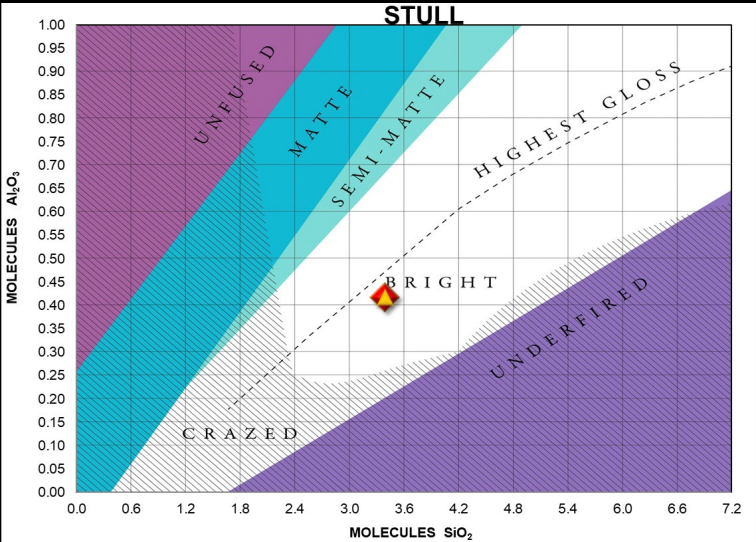
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.10 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.69	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.10 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.42	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.69	FeO 0.01
Cr ₂ O ₃ 0.02	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Ceramic
Materials
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Chemical Match
Bone Ash
062322-50

Neph Sy	36.51
Bone Ash	26.18
EPK	9.13
Flint	28.18
Chrome Oxide	1.01
Water	60



1-3 Second Dip



2-5 Second Dips

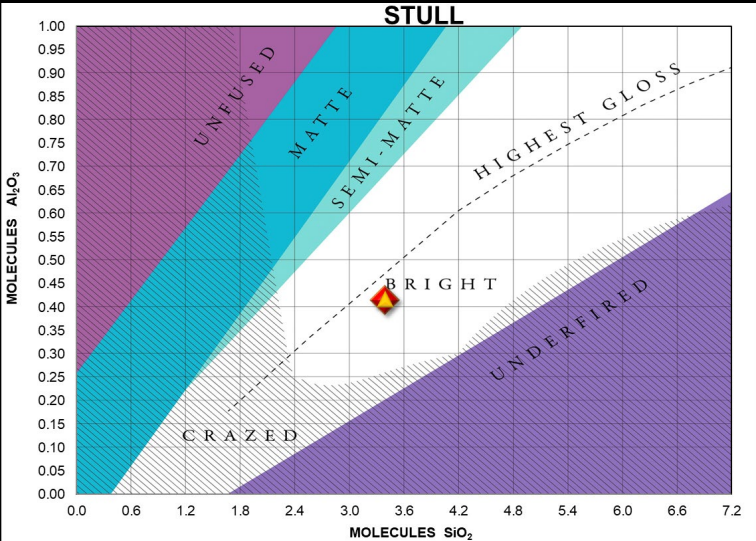


Reduction

Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.12 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.38		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 8.12 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.39	Collective "Al ₂ O ₃ " 0.42	Na ₂ O 0.23	K ₂ O 0.06	MgO 0.00	CaO 0.70
B ₂ O ₃	Al ₂ O ₃ 0.42	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 0.02	ZrO ₂	P ₂ O ₅ 0.38		MnO ₂	CoO



Ceramic
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