

Absence- Δ 10

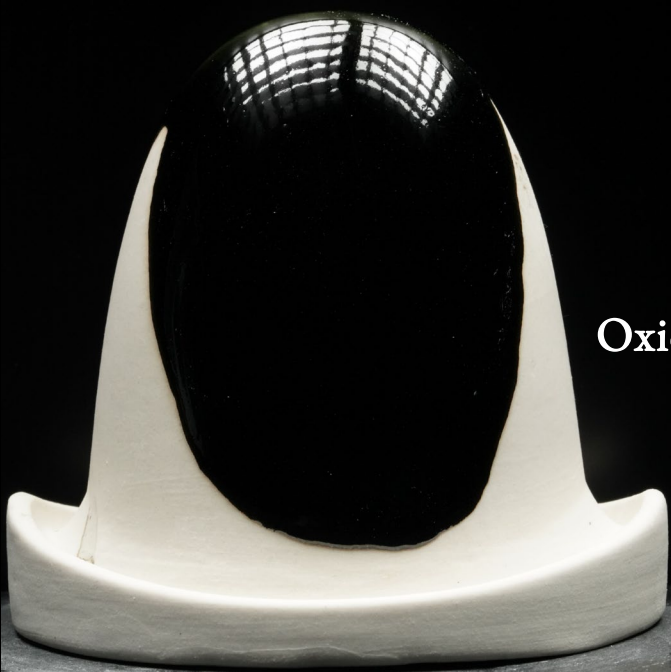
Lab 2-Flux Capacity

Absence

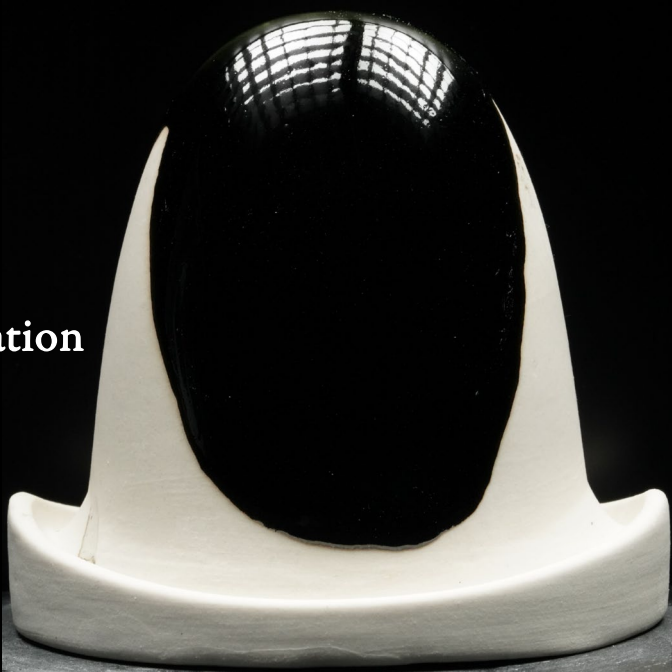
Original

062422-1

G200 EU	59.37
Whiting	18.04
EPK	3.55
Flint	19.05
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



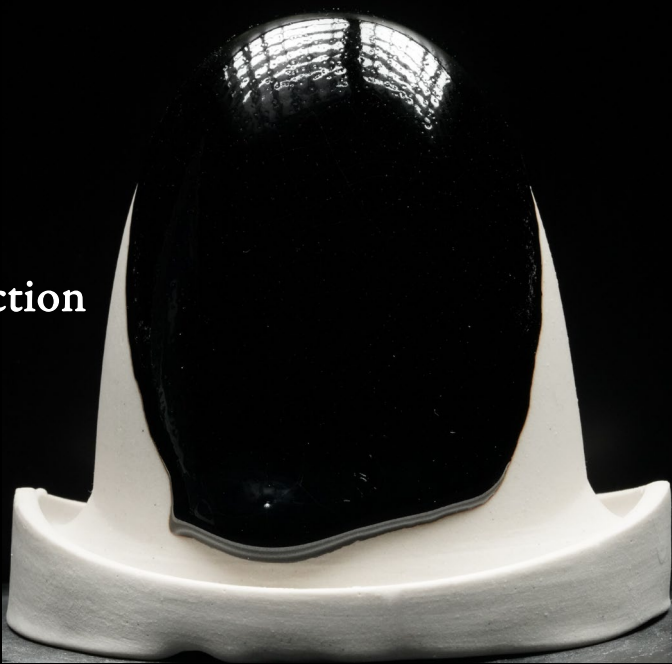
1-3 Second Dip



2-3 Second Dips

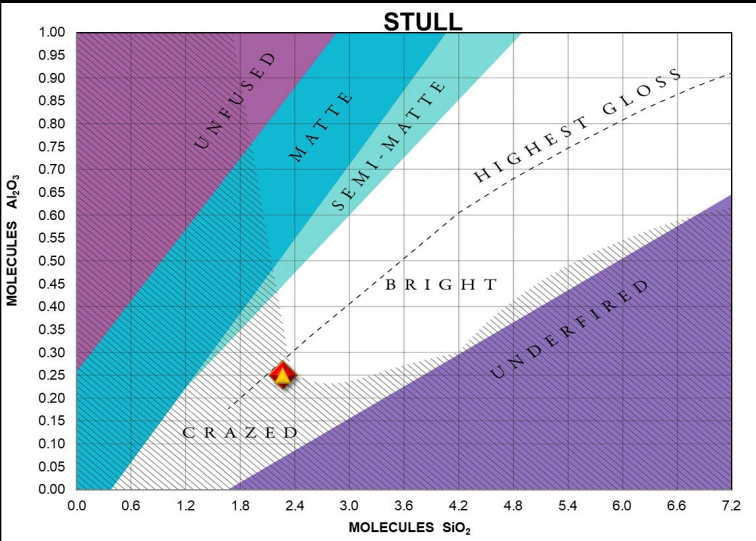


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.06 : 1		Alkali Metals 0.32		Alkaline Earths 0.68	
SiO ₂ 3.66	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.07	K ₂ O 0.25	MgO 0.00	CaO 0.67
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.06 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.27	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.04	K ₂ O 0.15	MgO 0.00	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.35
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04

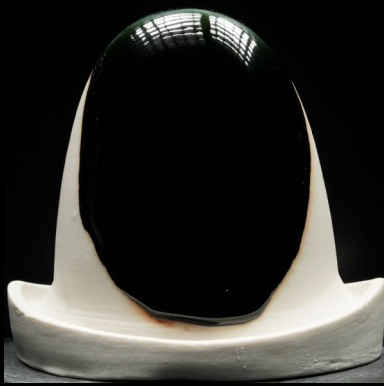


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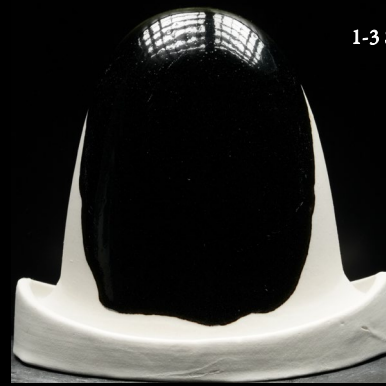
Lab 2-Alkali Metals-Oxidation



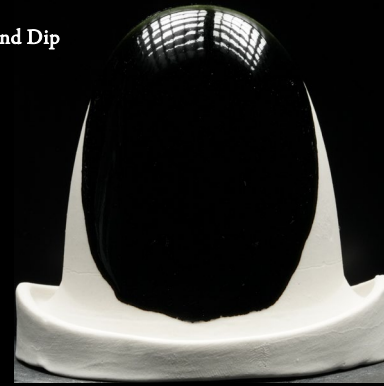
062422-1



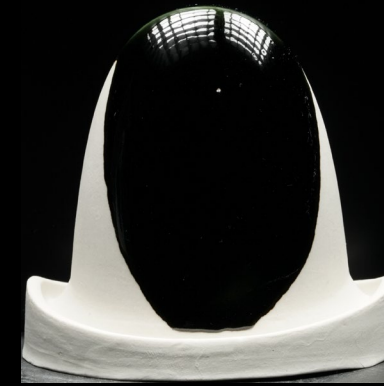
062422-7



062422-8



062422-9



062422-10



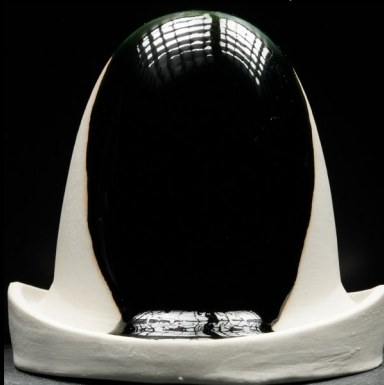
062422-11

1-3 Second Dip

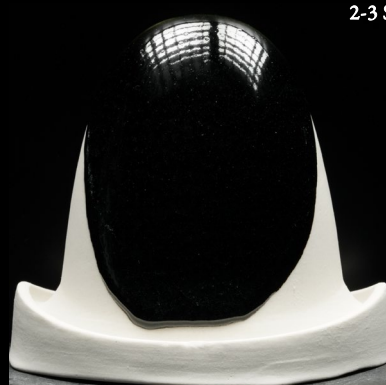
2-3 Second Dips



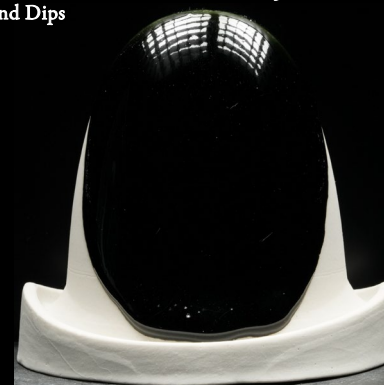
Original (G200EU)



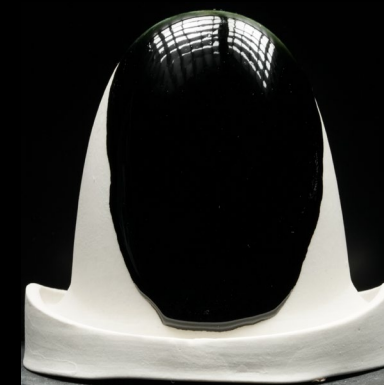
w/Neph Sy



w/Custer



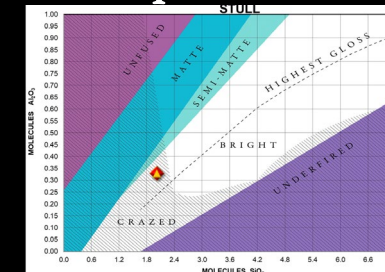
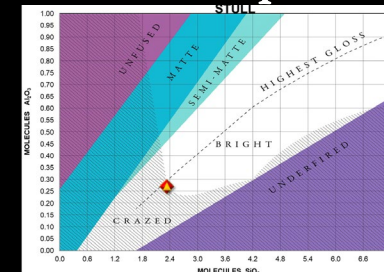
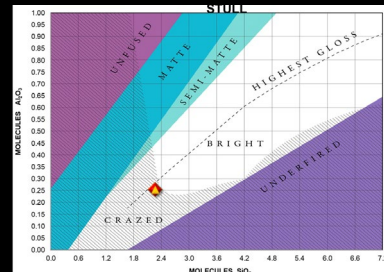
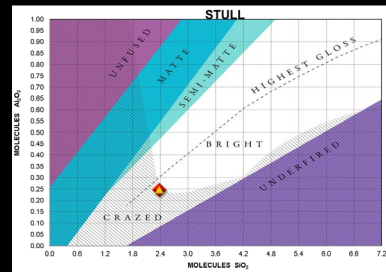
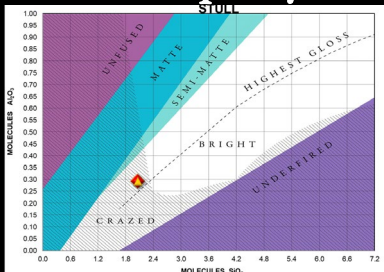
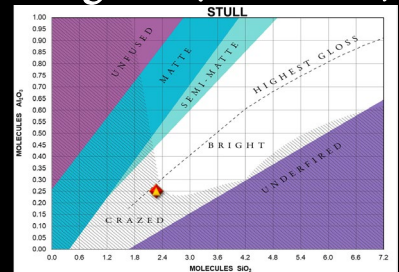
w/Mahavir



w/Minspar



w/Spodumene



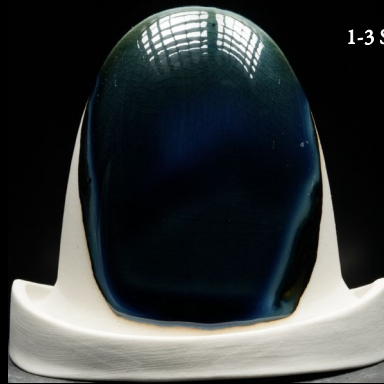
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Lab 2-Alkali Metals-Oxidation



062422-1



062422-13



062422-14



062422-15

1-3 Second Dip

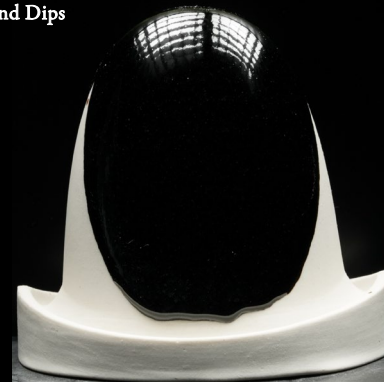
2-3 Second Dips



Original (G200EU)



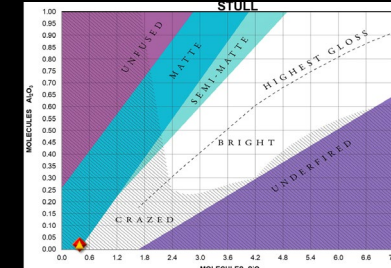
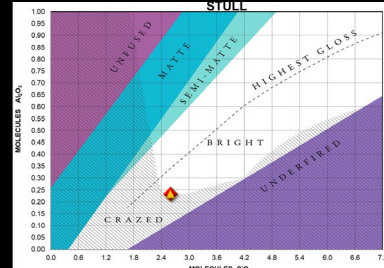
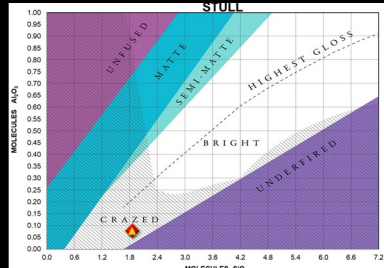
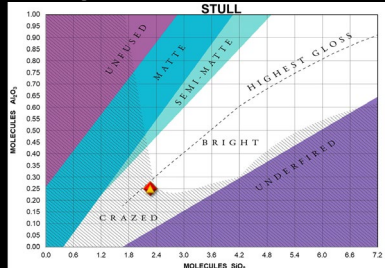
w/Frit 3110



w/Cornwall



w/Lithium Carbonate



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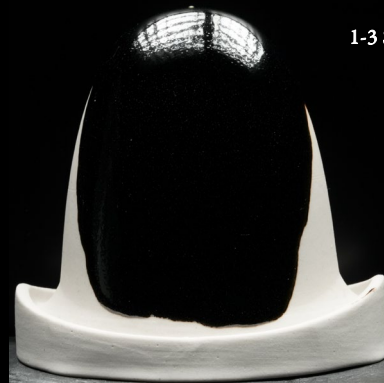
Lab 2-Alkali Metals-Reduction



062422-1



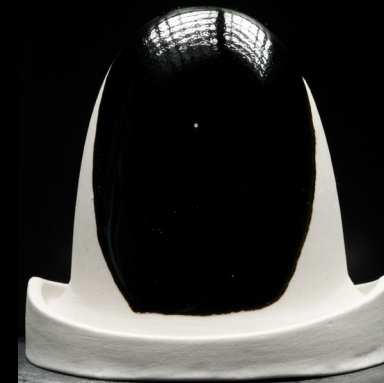
062422-7



062422-8



062422-9



062422-10



062422-11



Original (G200EU)



w/Neph Sy



w/Custer



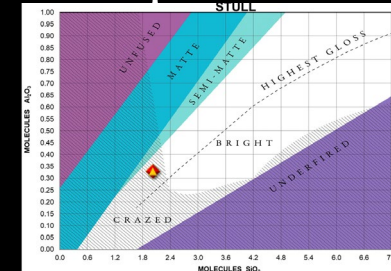
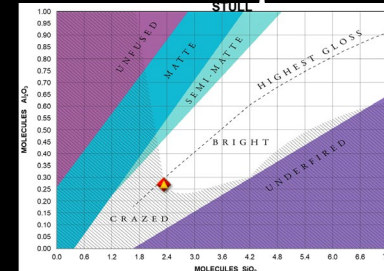
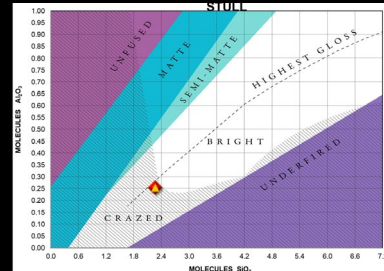
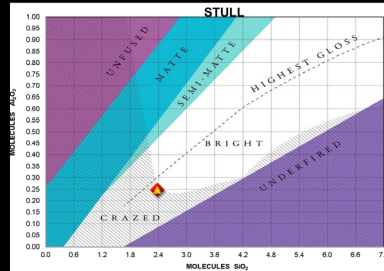
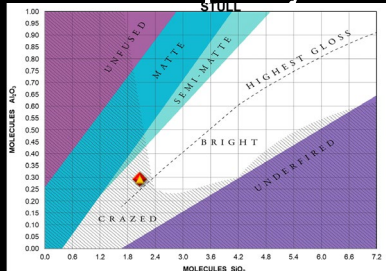
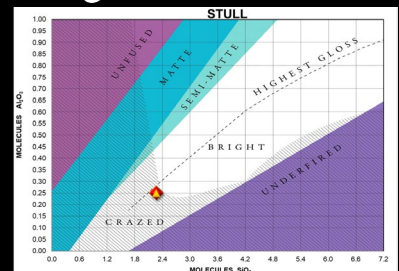
w/Mahavir



w/Minspar



w/Spodumene

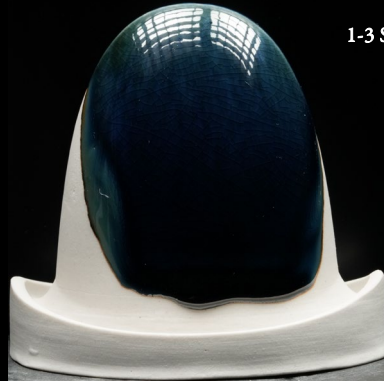


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Lab 2-Alkali Metals-Reduction



062422-1



062422-13



062422-14



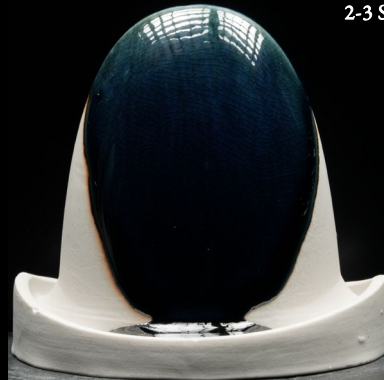
062422-15

1-3 Second Dip

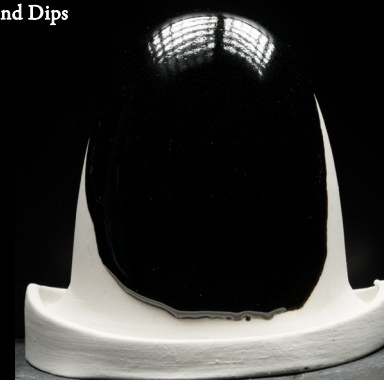
2-3 Second Dips



Original (G200EU)



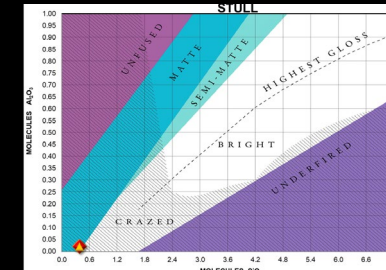
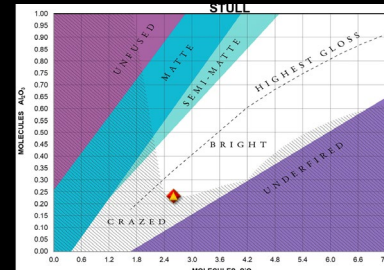
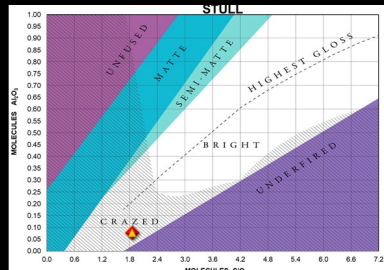
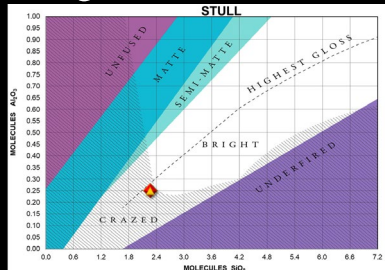
w/Frit 3110



w/Cornwall



w/Lithium Carbonate



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Lab 2-Alkaline Earth-Oxidation



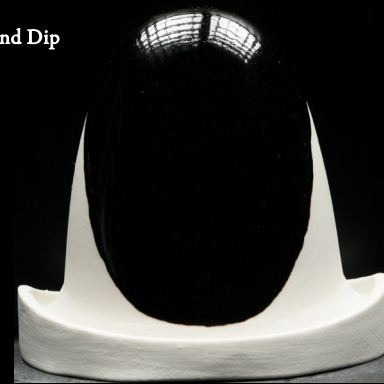
062422-1



062422-16



062422-17



062422-18



062422-19



062422-20

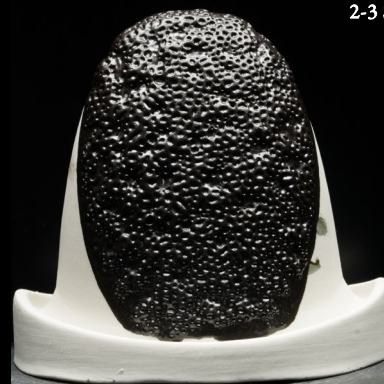
1-3 Second Dip



Original (Whiting)



w/Talc



w/Mag Carb



w/Dolomite

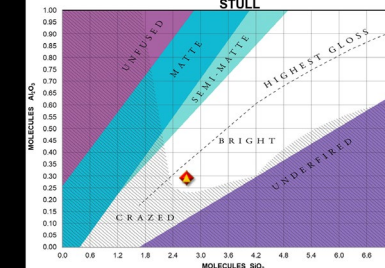
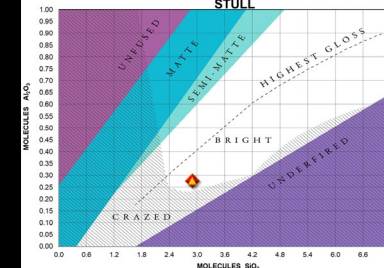
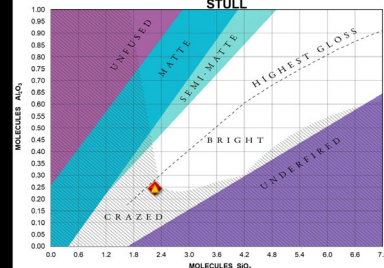
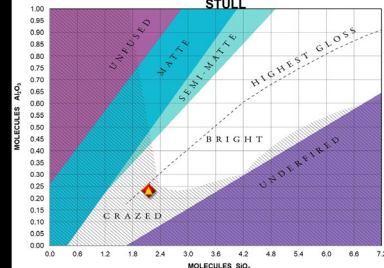
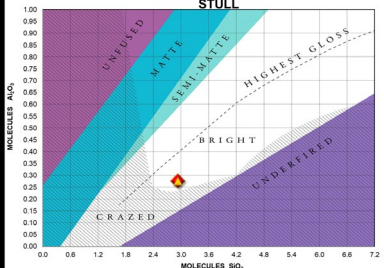
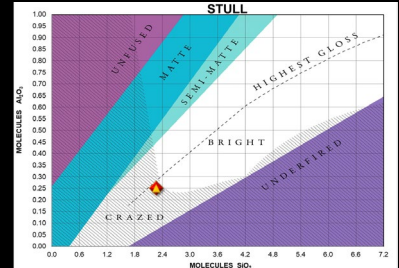


w/Wollastonite



w/Strontium Carb

2-3 Second Dips



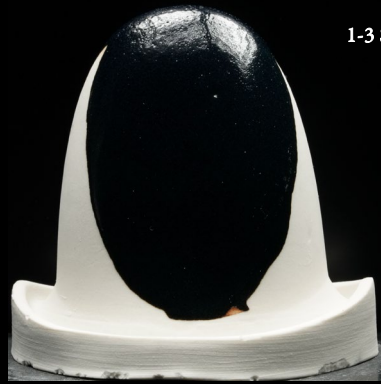
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Lab 2-Alkaline Earth-Oxidation



062422-1



062422-21



062422-22

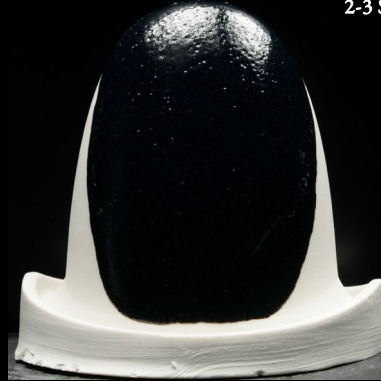


062422-23

1-3 Second Dip



Original (Whiting)



w/Barium Carb

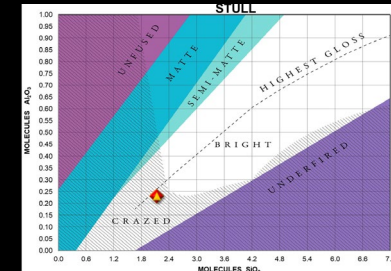
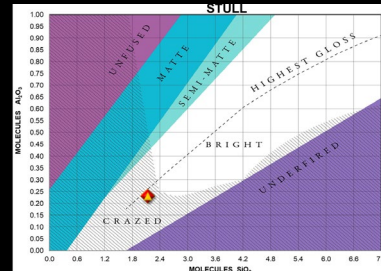
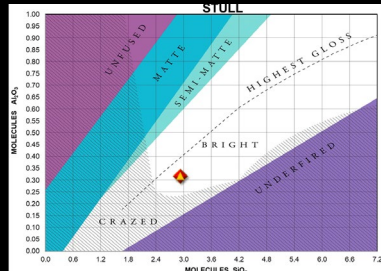
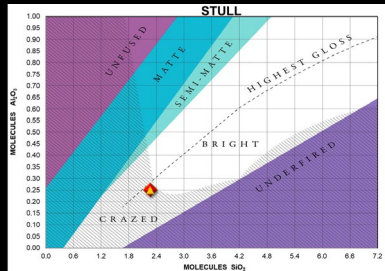


w/Zinc Oxide



w/Bone Ash

2-3 Second Dips



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Lab 2-Alkaline Earth-Reduction



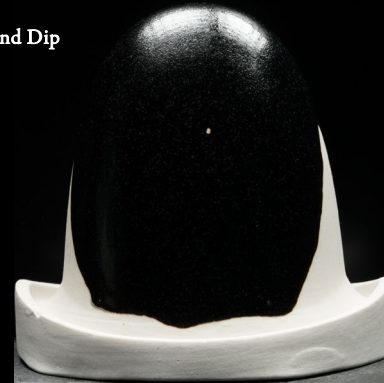
062422-1



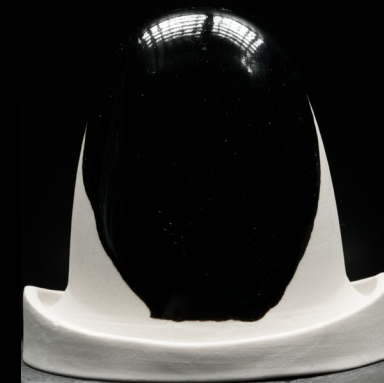
062422-16



062422-17



062422-18



062422-19



062422-20



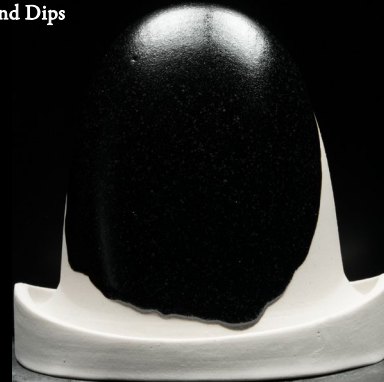
Original (Whiting)



w/Talc



w/Mag Carb



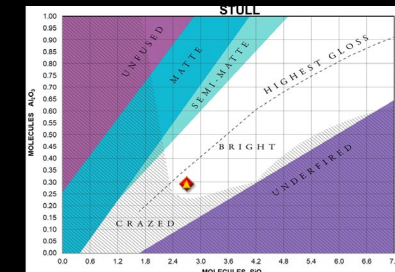
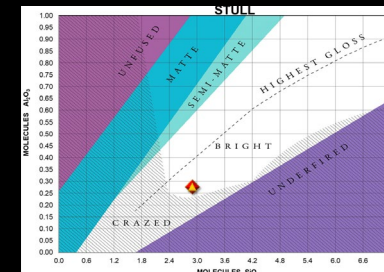
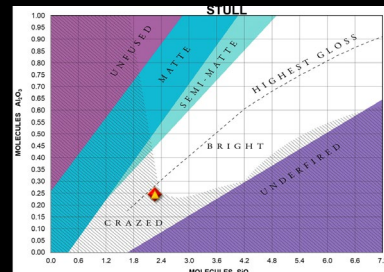
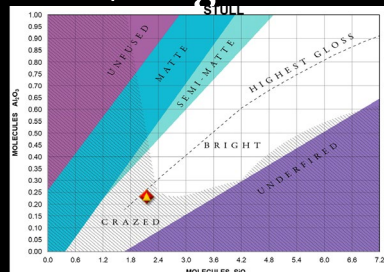
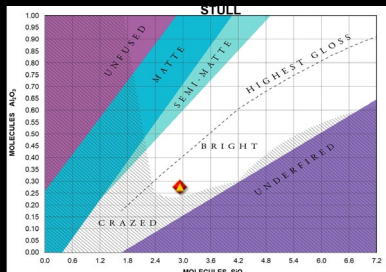
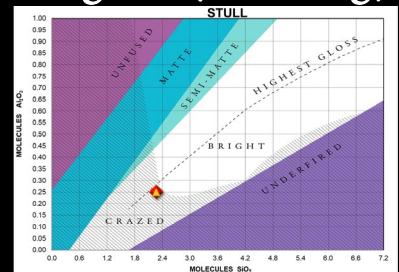
w/Dolomite



w/Wollastonite



w/Strontium Carb

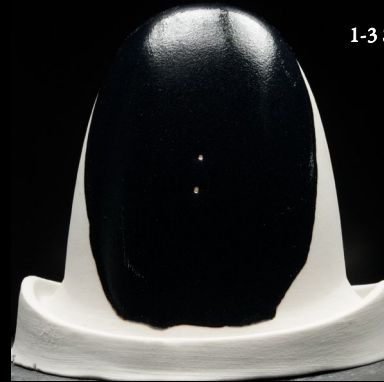


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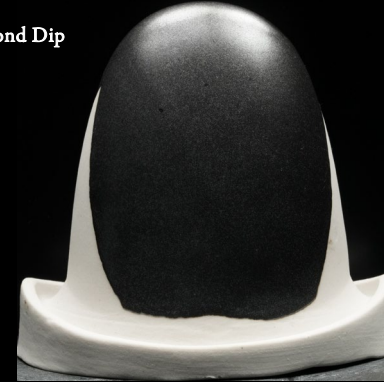
Lab 2-Alkaline Earth-Reduction



062422-1



062422-21

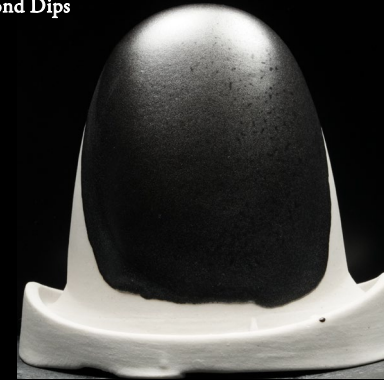


062422-22



062422-23

1-3 Second Dip



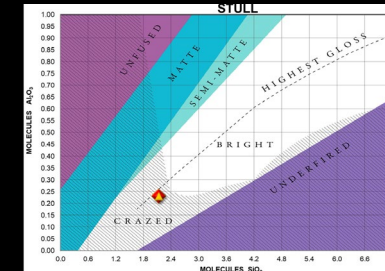
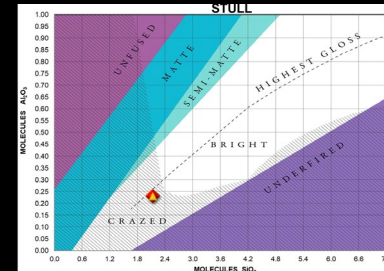
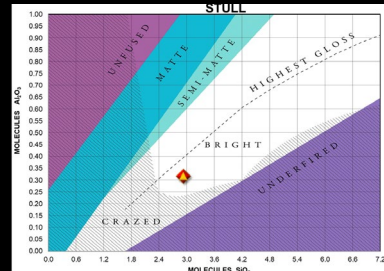
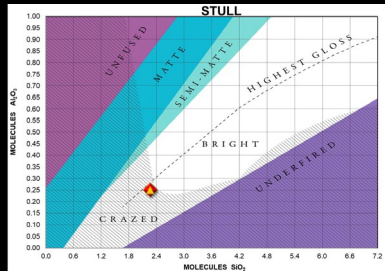
2-3 Second Dips

Original (Whiting)

w/Barium Carb

w/Zinc Oxide

w/Bone Ash



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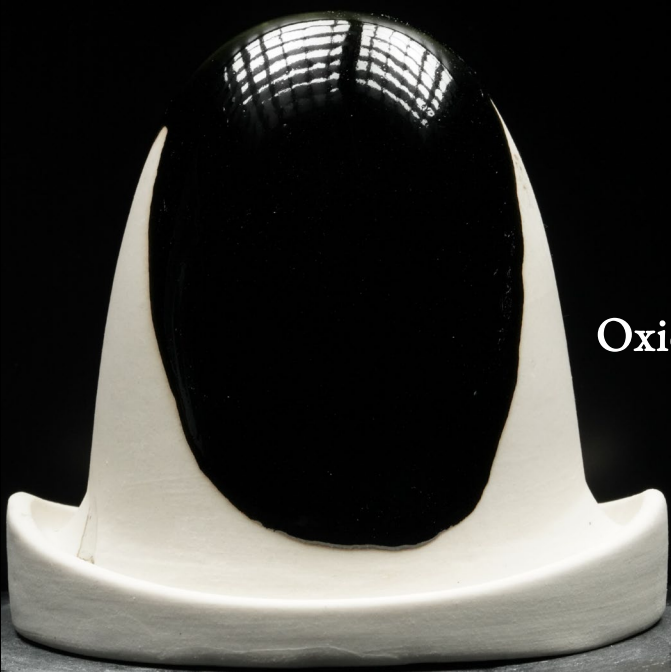
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Absence

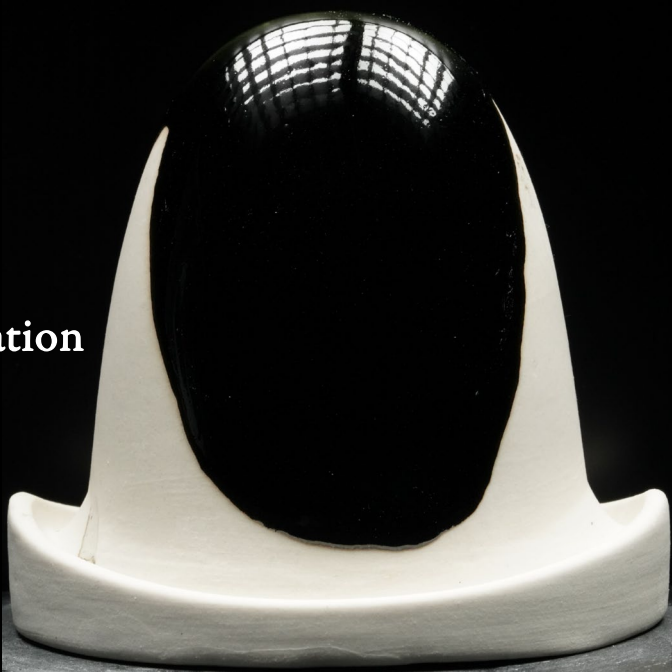
Original

062422-1

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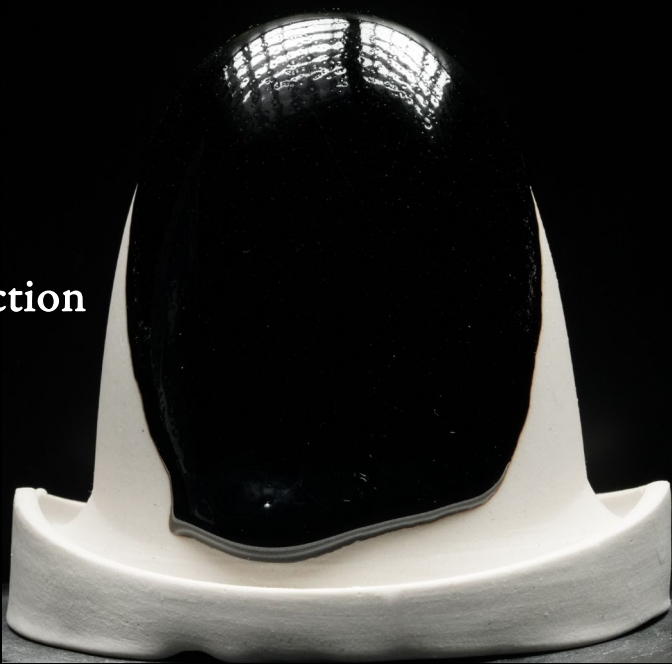
1-3 Second Dip



2-3 Second Dips

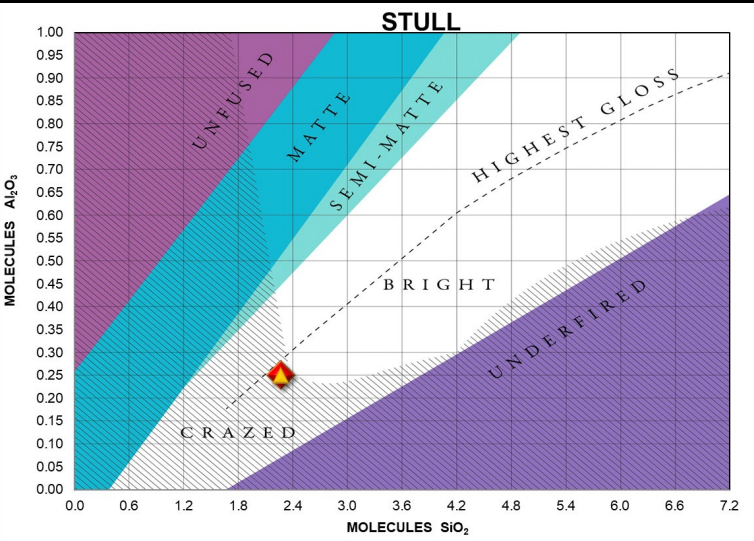


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.06 : 1		Alkali Metals 0.32		Alkaline Earths 0.68	
SiO ₂ 3.66	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.07	K ₂ O 0.25	MgO 0.00	CaO 0.67
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.06 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.27	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.04	K ₂ O 0.15	MgO 0.00	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.35
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



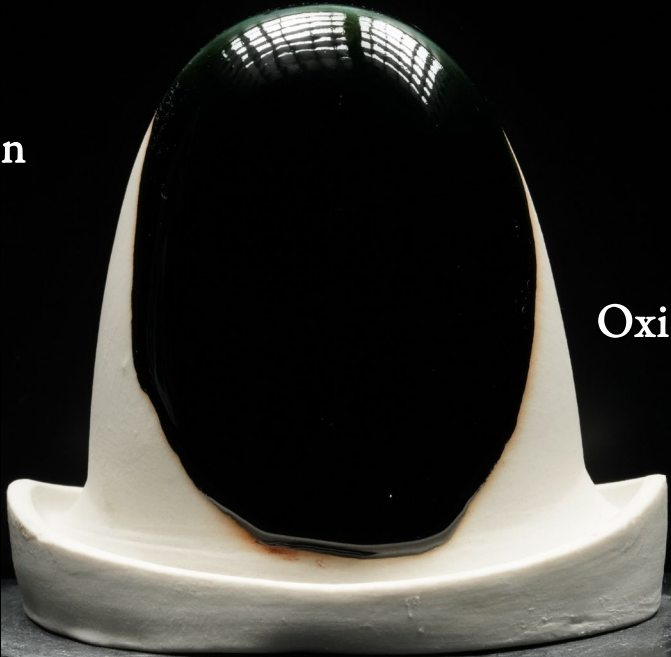
Ceramic
Materials
Workshop

Absence

Weight Substitution
Nepheline Syenite

062422-7

Neph Sy	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips



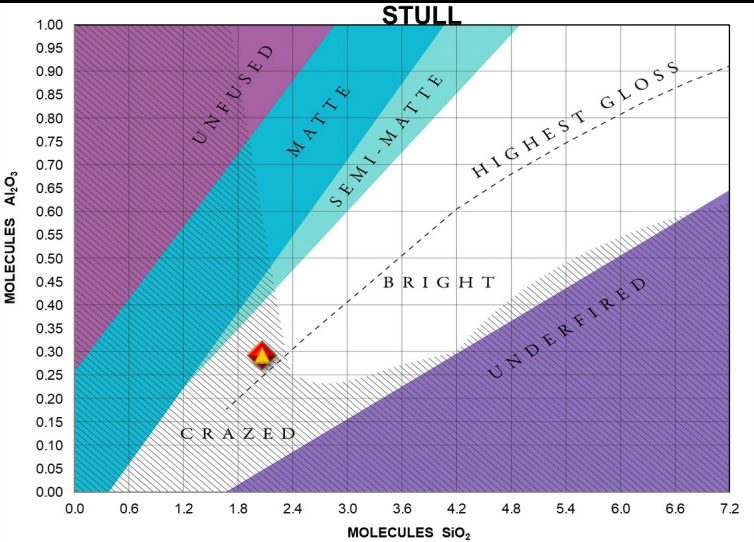
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 7.01 : 1		Alkali Metals 0.38		Alkaline Earths 0.62	
SiO ₂ 3.23	Collective "Al ₂ O ₃ " 0.46	Na ₂ O 0.30	K ₂ O 0.08	MgO 0.00	CaO 0.61
B ₂ O ₃	Al ₂ O ₃ 0.46	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 7.01 : 1		Alkali Metals 0.24		Alkaline Earths 0.76	
SiO ₂ 2.06	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.19	K ₂ O 0.05	MgO 0.00	CaO 0.39
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	FeO 0.33
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



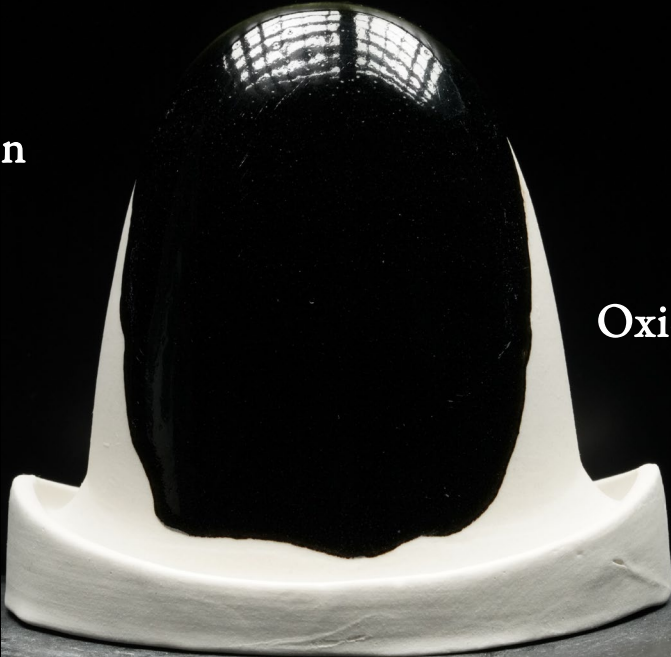
Ceramic
Materials
Workshop

Absence

Weight Substitution
Custer Feldspar

062422-8

Custer	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	80



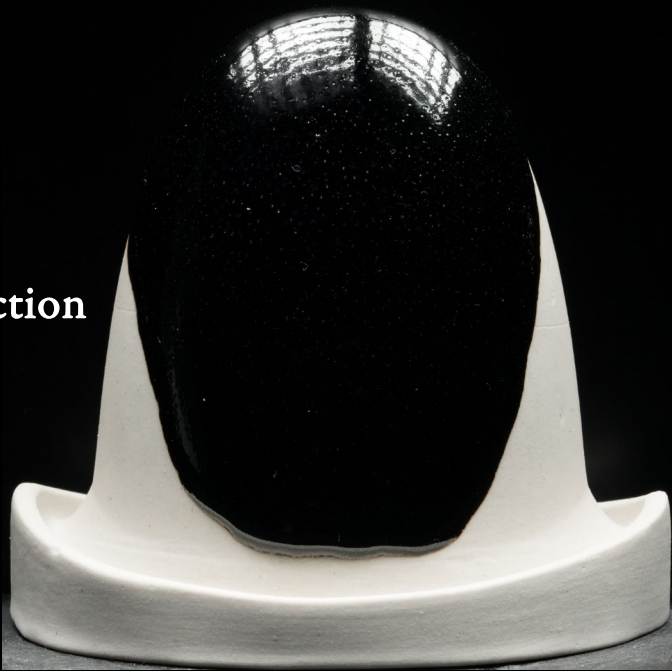
1-3 Second Dip



2-3 Second Dips



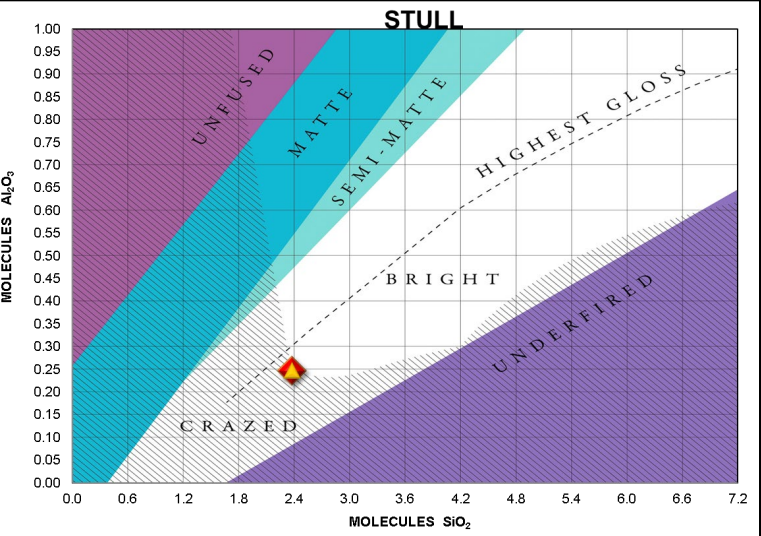
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.57 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 3.90	Collective "Al ₂ O ₃ " 0.41	Na ₂ O 0.07	K ₂ O 0.22	MgO 0.01	CaO 0.69
B ₂ O ₃	Al ₂ O ₃ 0.40	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 9.57 :1		Alkali Metals 0.18		Alkaline Earths 0.82	
SiO ₂ 2.38	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.04	K ₂ O 0.13	MgO 0.00	CaO 0.42
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.36
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



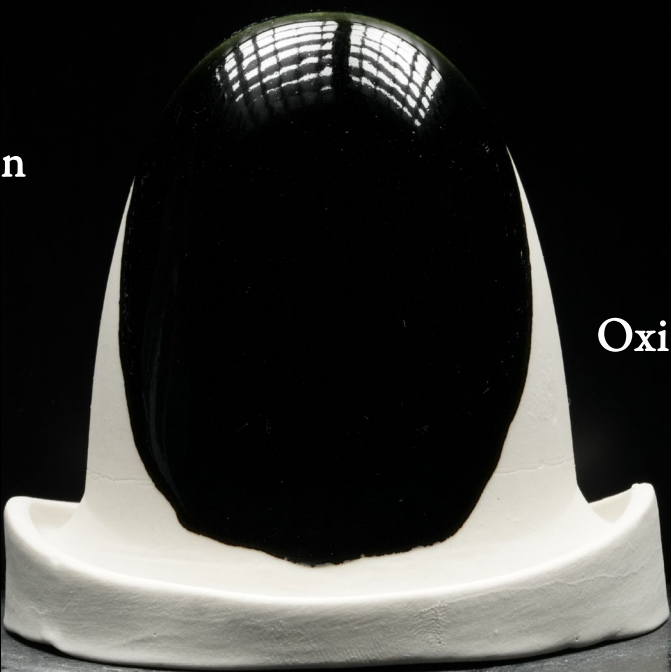
Ceramic
Materials
Workshop

Absence

Weight Substitution
Mahavir Feldspar

062422-9

Mahavir	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



Oxidation

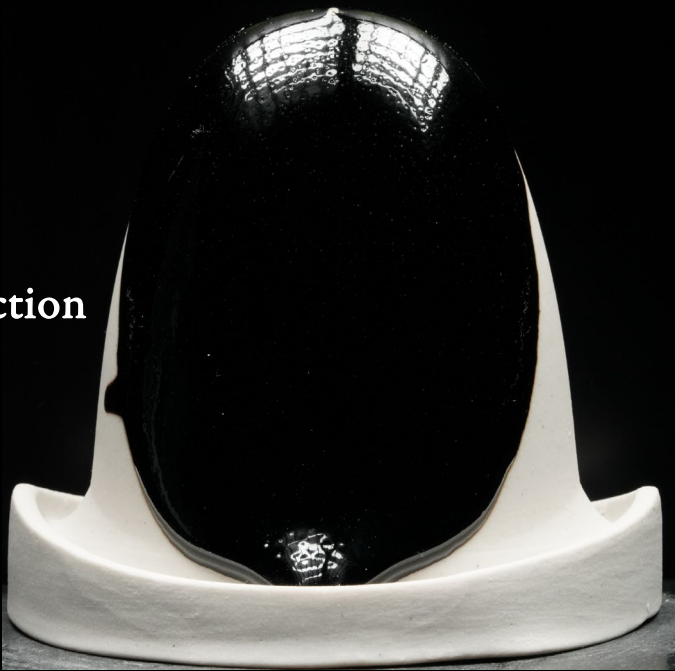


1-3 Second Dip

2-3 Second Dips

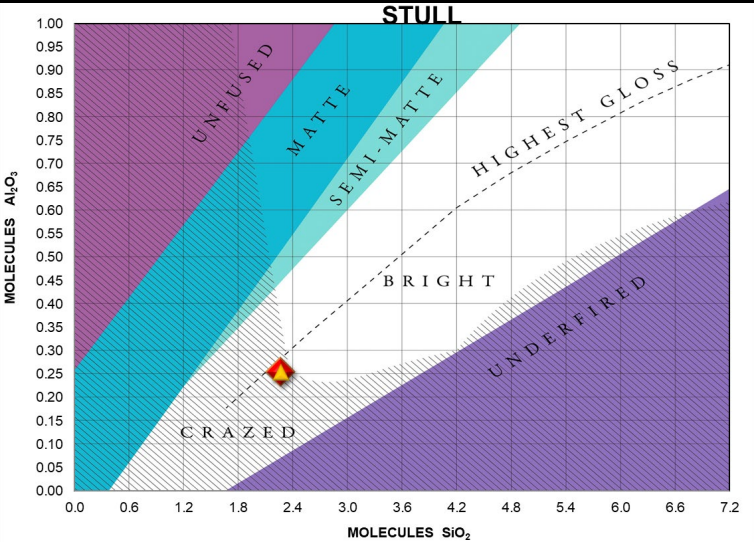


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.88 : 1		Alkali Metals 0.33		Alkaline Earths 0.67	
SiO ₂ 3.65	Collective "Al ₂ O ₃ " 0.41	Na ₂ O 0.09	K ₂ O 0.24	MgO 0.01	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 8.88 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.27	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.06	K ₂ O 0.15	MgO 0.01	CaO 0.41
B ₂ O ₃	Al ₂ O ₃ 0.25	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.35
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



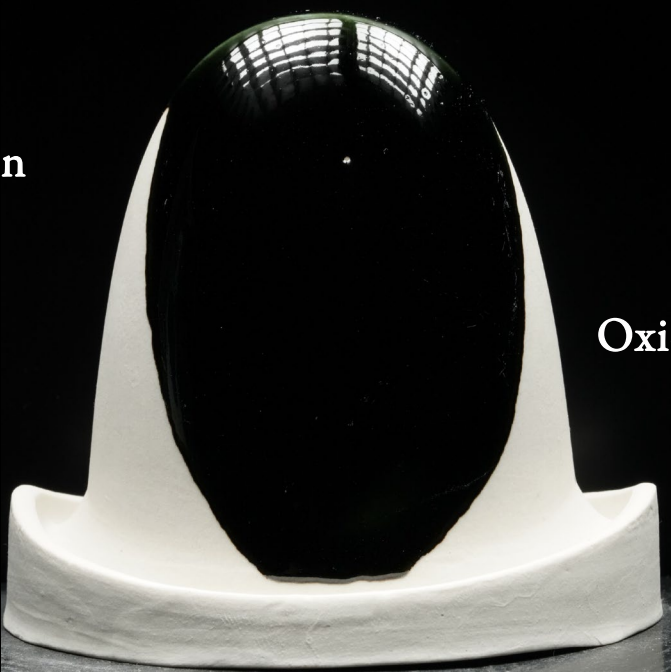
Ceramic
Materials
Workshop

Absence

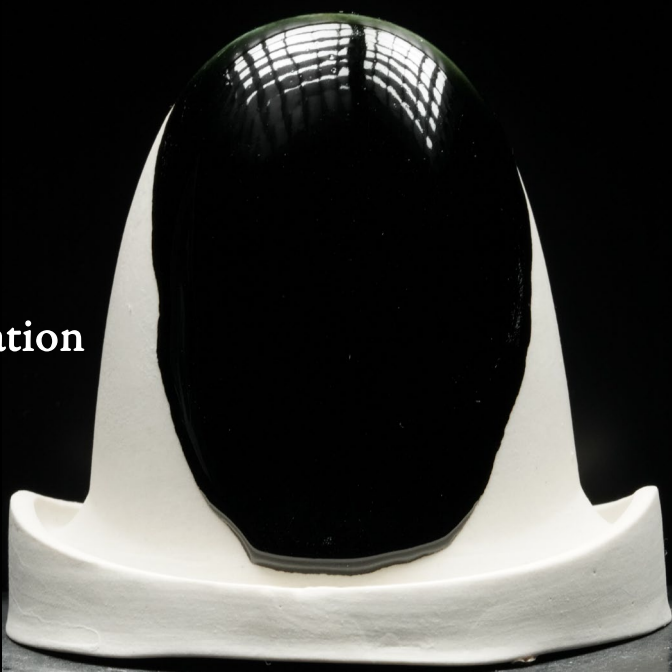
Weight Substitution
Minspar Feldspar

062422-10

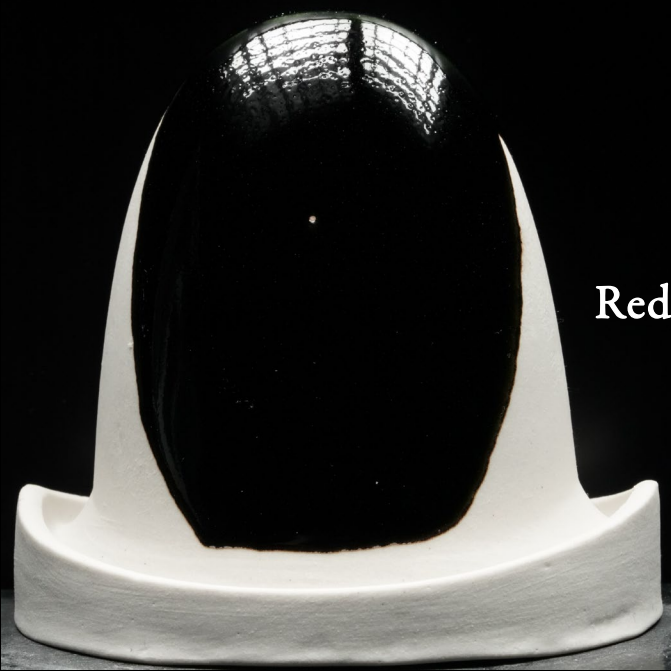
Minspar	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



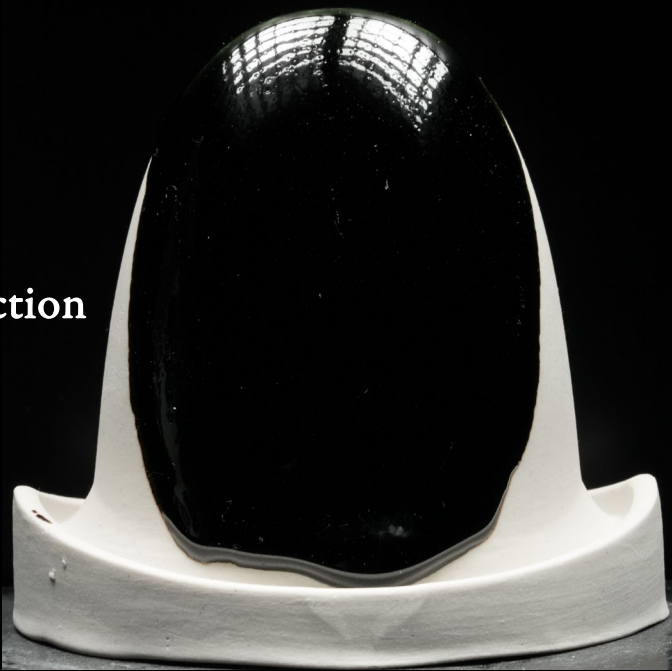
1-3 Second Dip



2-3 Second Dips



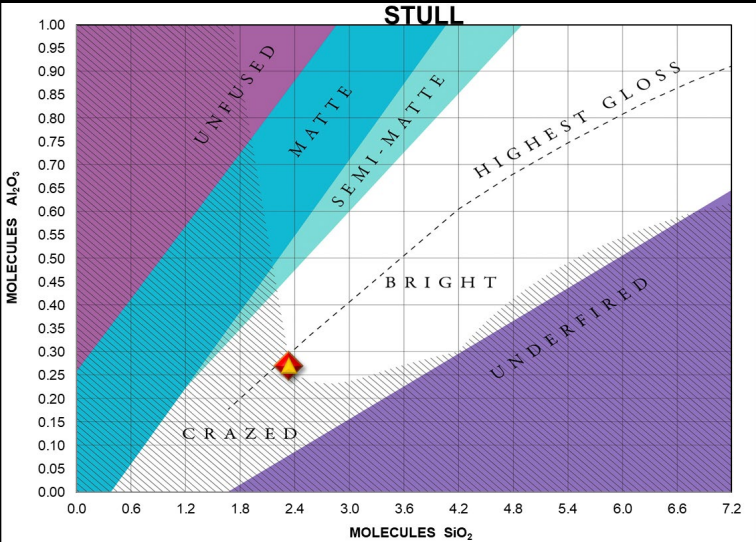
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 8.59 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 3.79	Collective "Al ₂ O ₃ " 0.44	Na ₂ O 0.20	K ₂ O 0.09	MgO 0.00	CaO 0.71
B ₂ O ₃	Al ₂ O ₃ 0.44	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 8.59 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 2.33	Collective "Al ₂ O ₃ " 0.27	Na ₂ O 0.12	K ₂ O 0.05	MgO 0.00	CaO 0.44
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	FeO 0.35
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



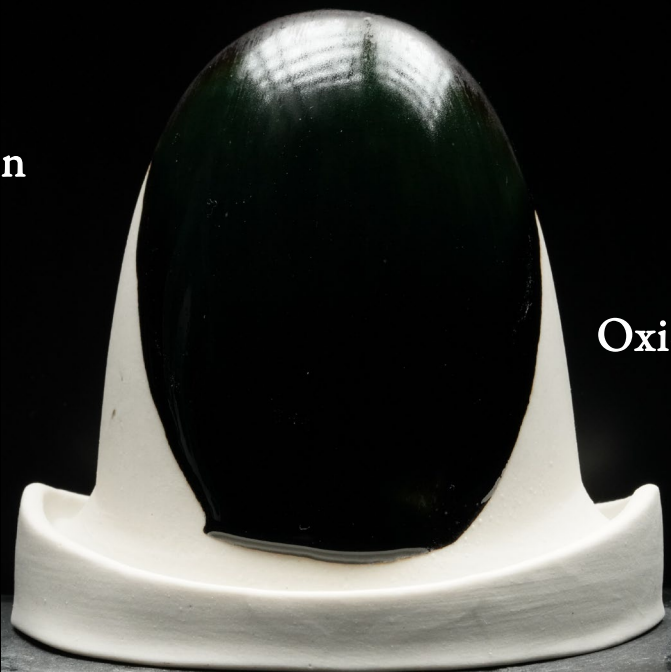
Ceramic
Materials
Workshop

Absence

Weight Substitution
Spodumene

062422-11

Spodumene	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



Oxidation



1-3 Second Dip

2-3 Second Dips

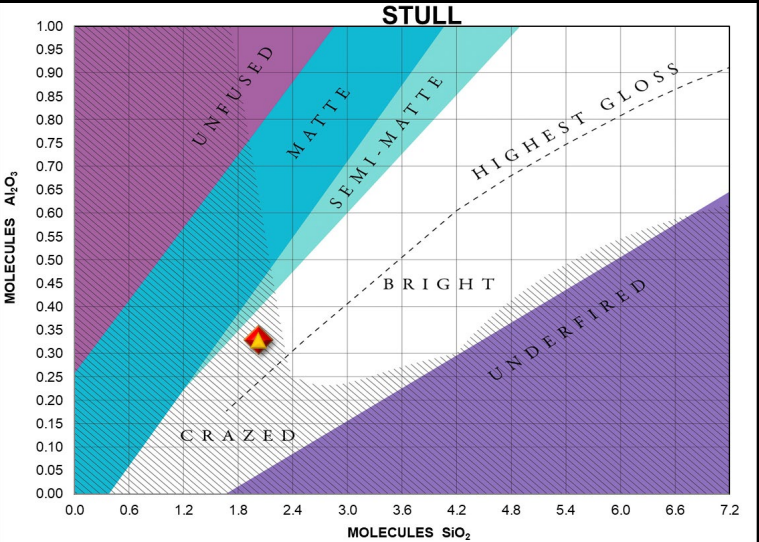


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 6.13 : 1		Alkali Metals 0.43		Alkaline Earths 0.57	
SiO ₂ 3.09	Collective "Al ₂ O ₃ " 0.50	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.56
B ₂ O ₃	Al ₂ O ₃ 0.50	Li ₂ O 0.43	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 6.13 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 2.02	Collective "Al ₂ O ₃ " 0.33	Na ₂ O 0.00	K ₂ O 0.00	MgO 0.00	CaO 0.37
B ₂ O ₃	Al ₂ O ₃ 0.33	Li ₂ O 0.28	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.32
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



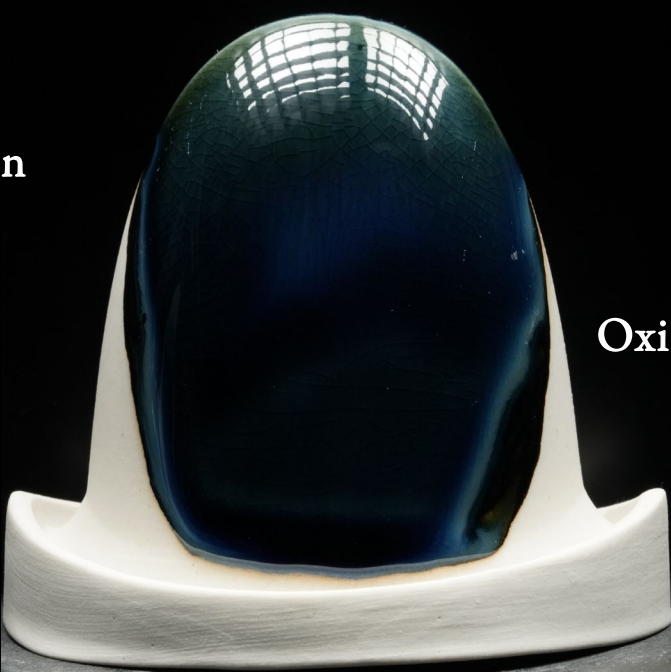
Ceramic
Materials
Workshop

Absence

Weight Substitution
Frit 3110

062422-13

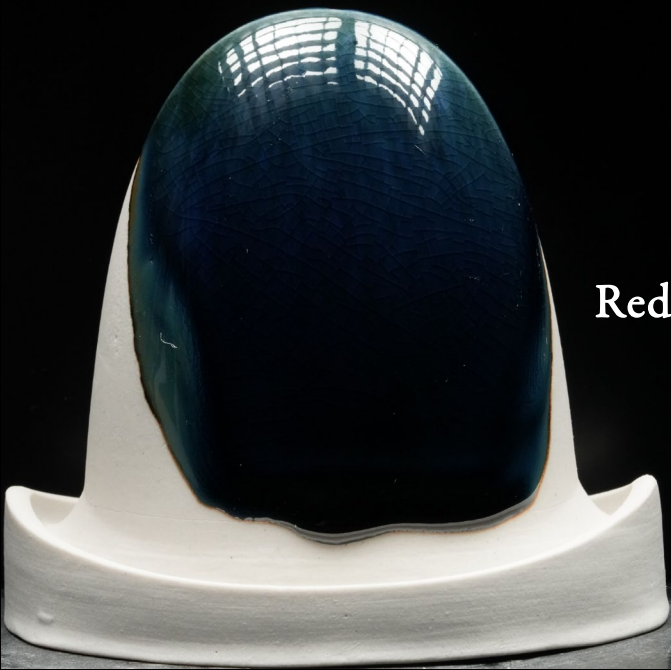
3110	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



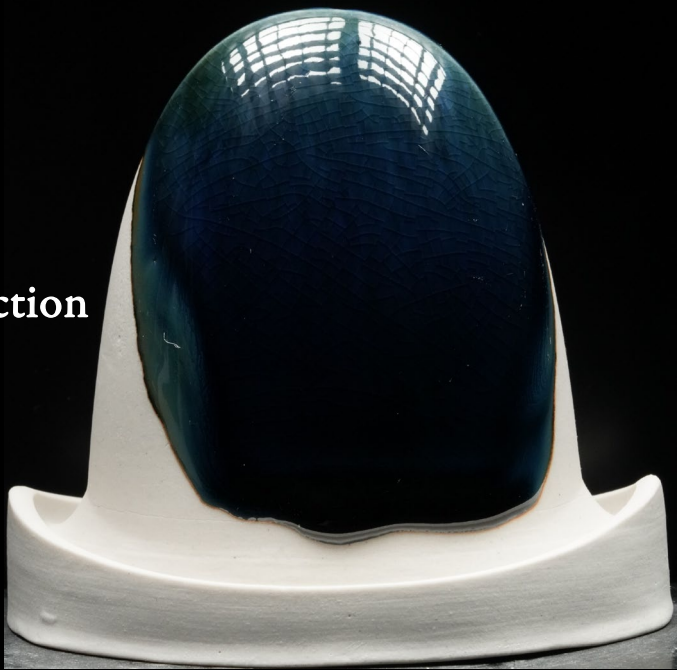
1-3 Second Dip



2-3 Second Dips



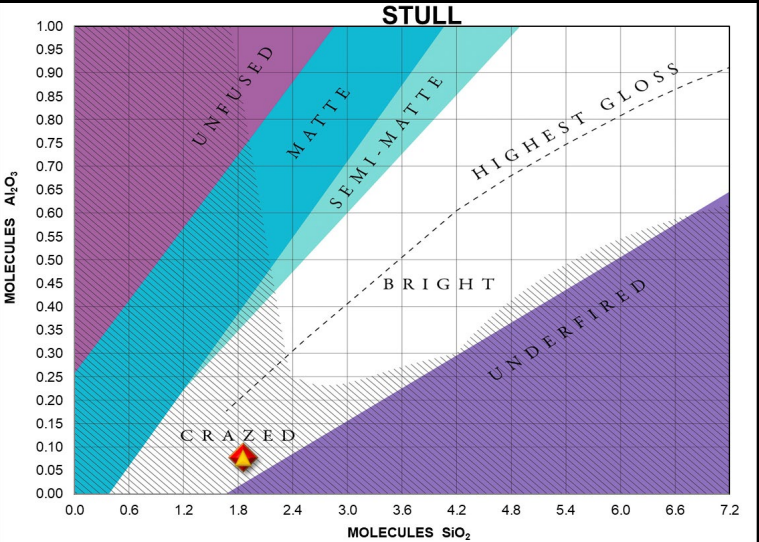
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 24.05 : 1		Alkali Metals 0.38		Alkaline Earths 0.62	
SiO ₂ 2.67	Collective "Al ₂ O ₃ " 0.11	Na ₂ O 0.35	K ₂ O 0.03	MgO 0.00	CaO 0.62
B ₂ O ₃ 0.05	Al ₂ O ₃ 0.11	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 24.05 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 1.86	Collective "Al ₂ O ₃ " 0.08	Na ₂ O 0.24	K ₂ O 0.02	MgO 0.00	CaO 0.43
B ₂ O ₃ 0.04	Al ₂ O ₃ 0.08	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.28
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



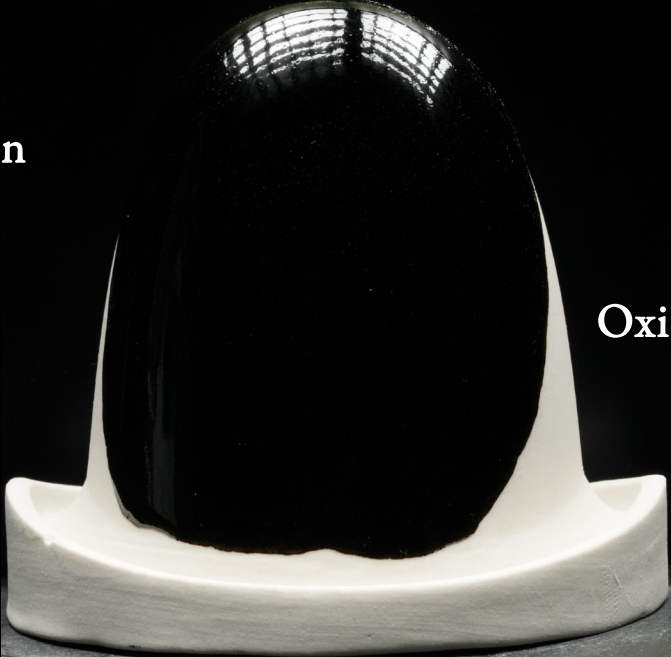
Ceramic
Materials
Workshop

Absence

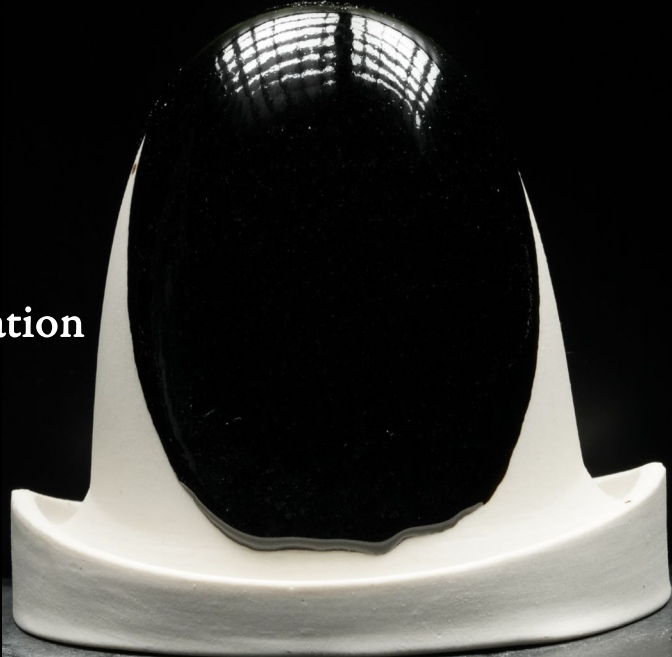
Weight Substitution
Cornwall

062422-14

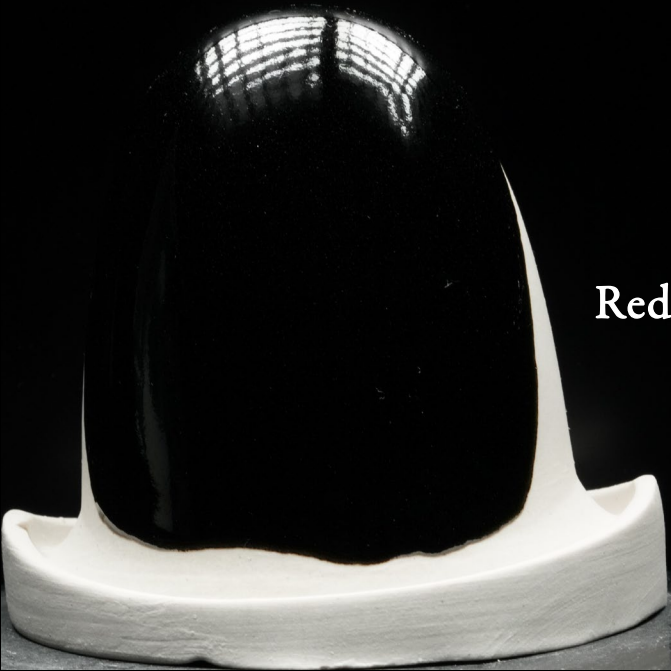
Cornwall	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	90



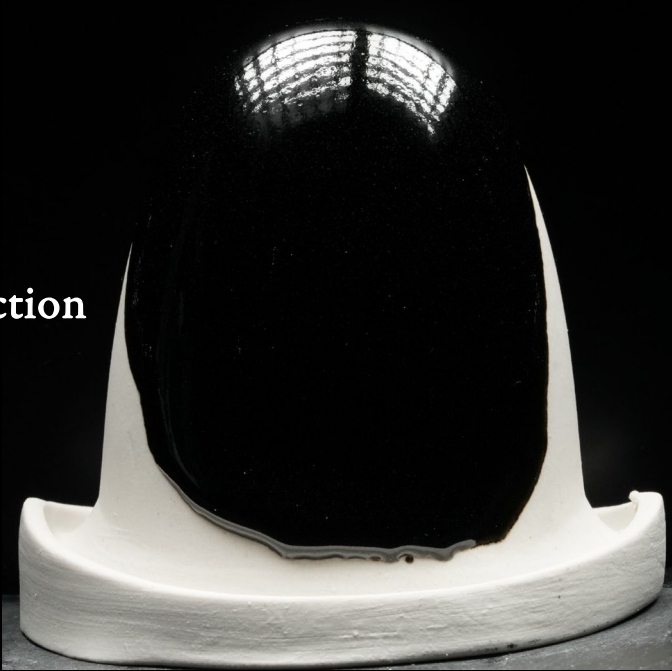
1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



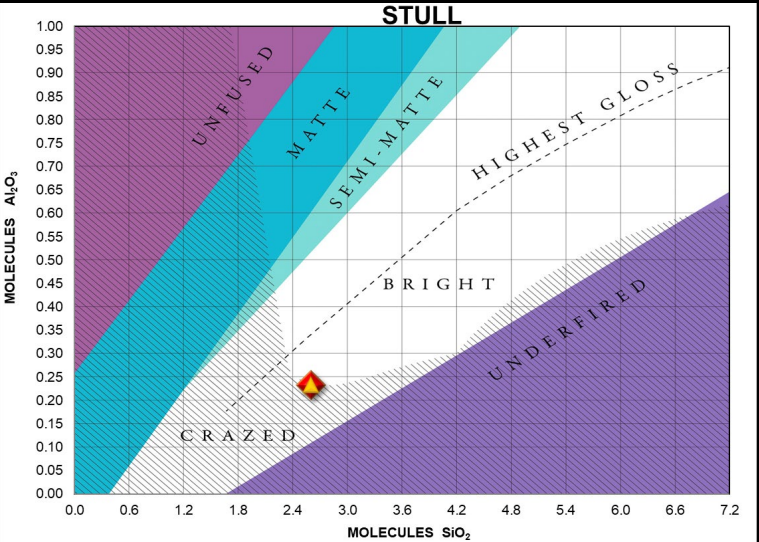
2-3 Second Dips

Oxidation

Reduction

UMF

SiO ₂ :Al ₂ O ₃ Ratio 11.10 :1		Alkali Metals 0.19		Alkaline Earths 0.81	
SiO ₂ 4.39	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.10	K ₂ O 0.09	MgO 0.01	CaO 0.79
B ₂ O ₃	Al ₂ O ₃ 0.39	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 11.10 :1		Alkali Metals 0.11		Alkaline Earths 0.89	
SiO ₂ 2.60	Collective "Al ₂ O ₃ " 0.23	Na ₂ O 0.06	K ₂ O 0.05	MgO 0.00	CaO 0.47
B ₂ O ₃	Al ₂ O ₃ 0.23	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.38
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



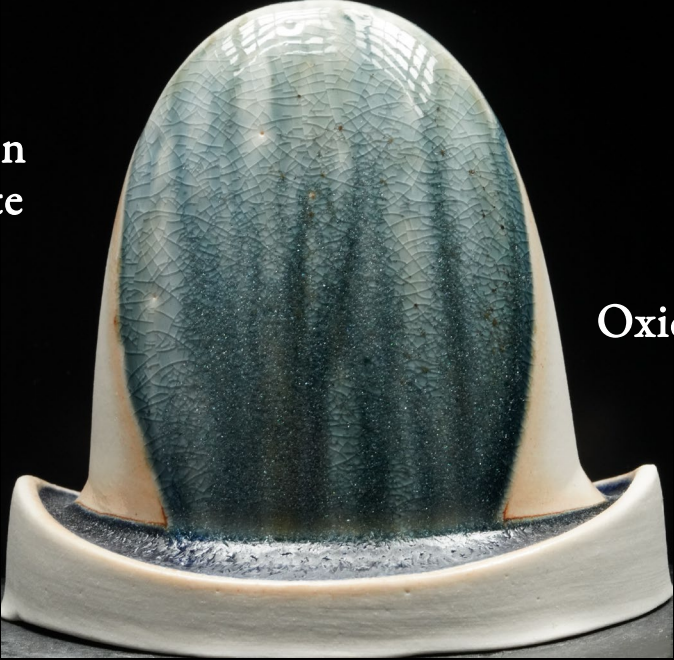
Ceramic
Materials
Workshop

Absence

Weight Substitution
Lithium Carbonate

062422-15

Lithium Carb	53.45
Whiting	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips



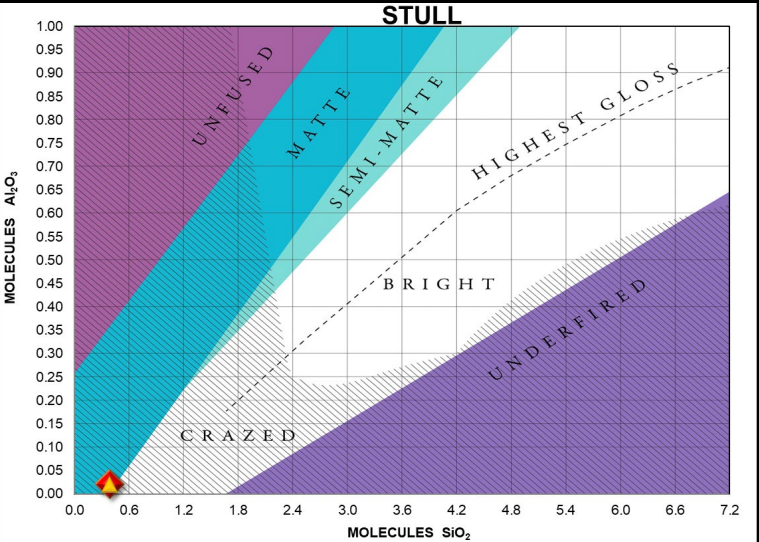
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 18.55 : 1		Alkali Metals 0.80		Alkaline Earths 0.20	
SiO ₂ 0.46	Collective "Al ₂ O ₃ " 0.02	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.20
B ₂ O ₃	Al ₂ O ₃ 0.02	Li ₂ O 0.80	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 18.55 : 1		Alkali Metals 0.67		Alkaline Earths 0.33	
SiO ₂ 0.39	Collective "Al ₂ O ₃ " 0.02	Na ₂ O	K ₂ O 0.00	MgO 0.00	CaO 0.17
B ₂ O ₃	Al ₂ O ₃ 0.02	Li ₂ O 0.67	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.14
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.02



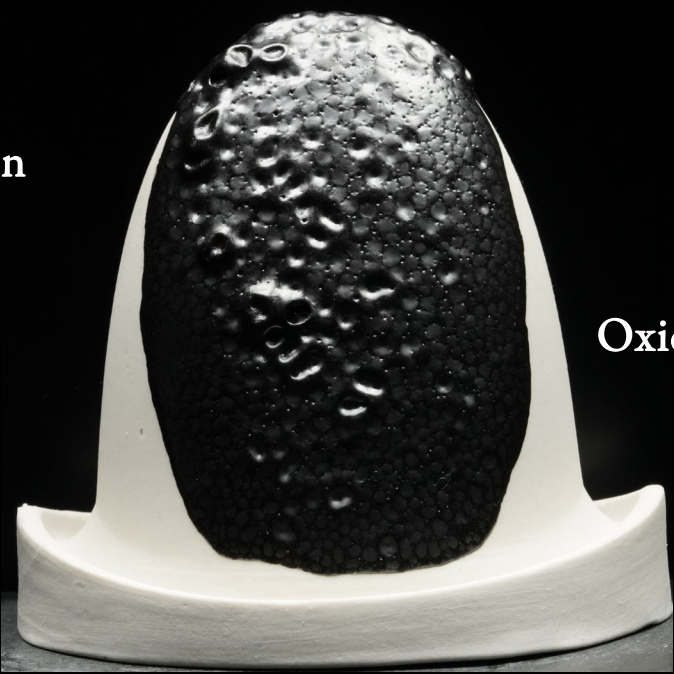
Ceramic
Materials
Workshop

Absence

Weight Substitution
Talc

062422-16

G200 EU	53.45
Talc	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips

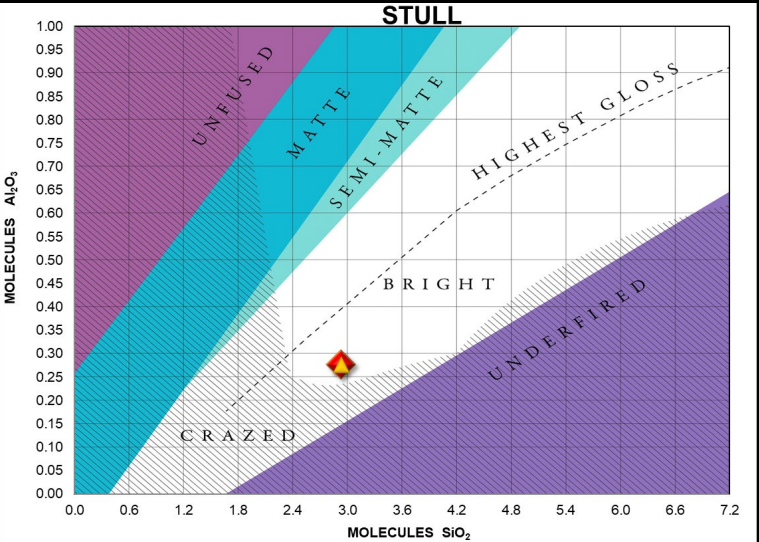


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.59 : 1		Alkali Metals 0.35		Alkaline Earths 0.65	
SiO ₂ 5.05	Collective "Al ₂ O ₃ " 0.48	Na ₂ O 0.08	K ₂ O 0.27	MgO 0.57	CaO 0.07
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	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.59 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.28	Na ₂ O 0.04	K ₂ O 0.16	MgO 0.33	CaO 0.04
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	FeO 0.39
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



Ceramic
Materials
Workshop

Absence

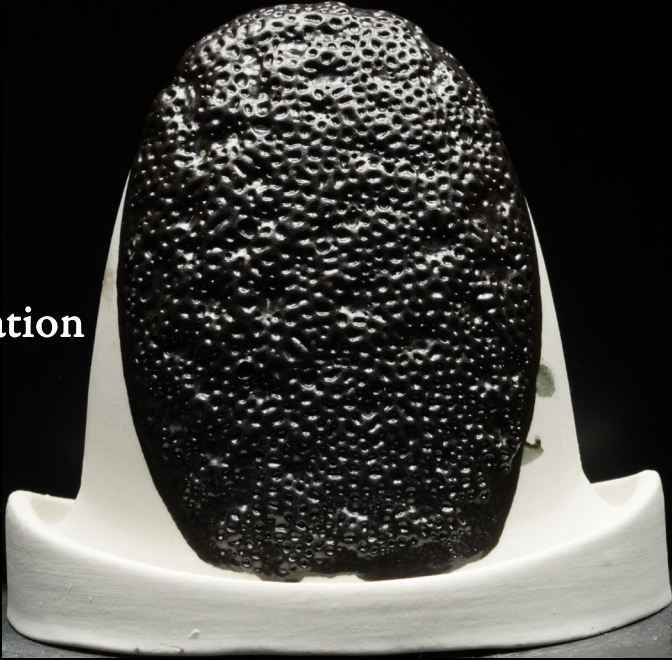
Weight Substitution
Magnesium Carbonate

062422-17

G200 EU	53.45
Mag Carbonate	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	140



Oxidation

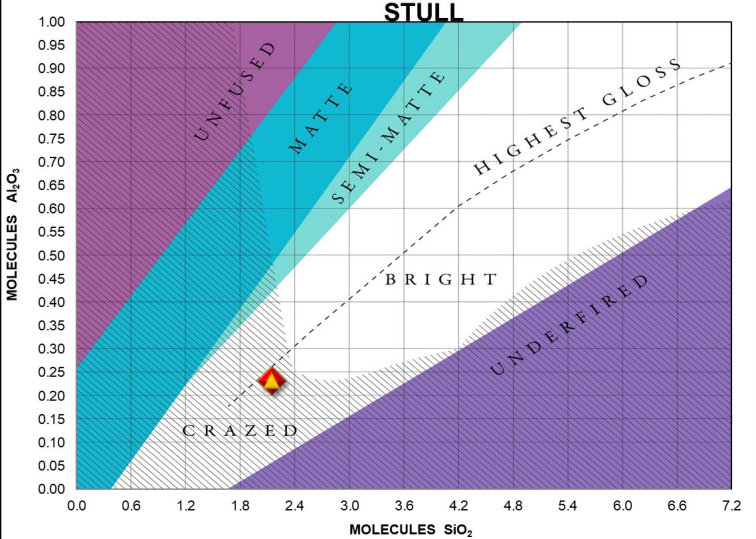


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.20 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 3.33	Collective "Al ₂ O ₃ " 0.36	Na ₂ O 0.06	K ₂ O 0.20	MgO 0.71	CaO 0.02
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.20 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 2.15	Collective "Al ₂ O ₃ " 0.23	Na ₂ O 0.04	K ₂ O 0.13	MgO 0.46	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.23	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.33
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



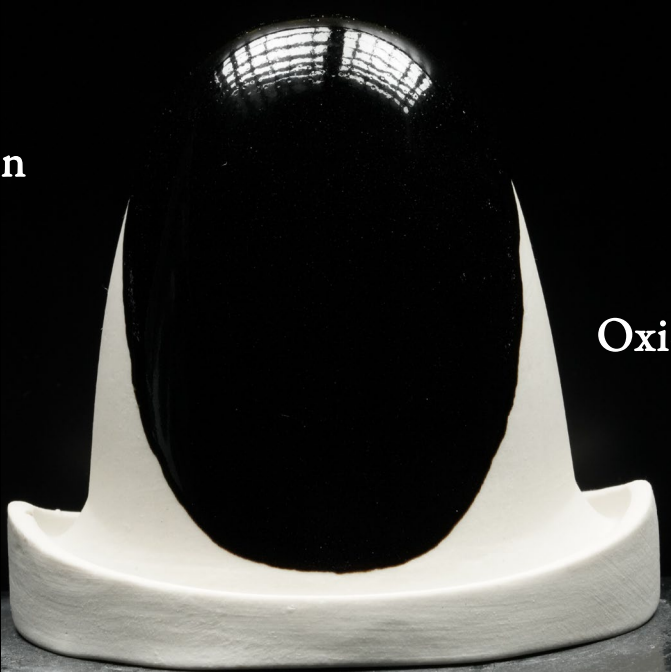
Ceramic
Materials
Workshop

Absence

Weight Substitution
Dolomite

062422-18

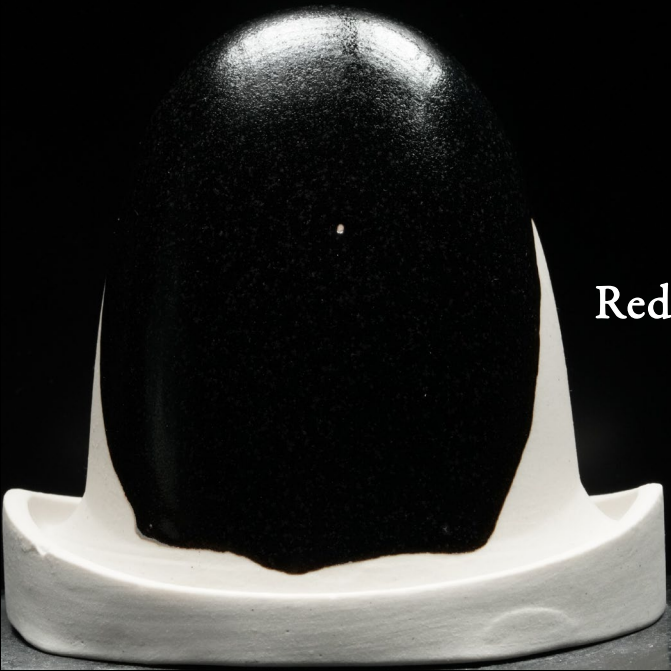
G200 EU	53.45
Dolomite	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips

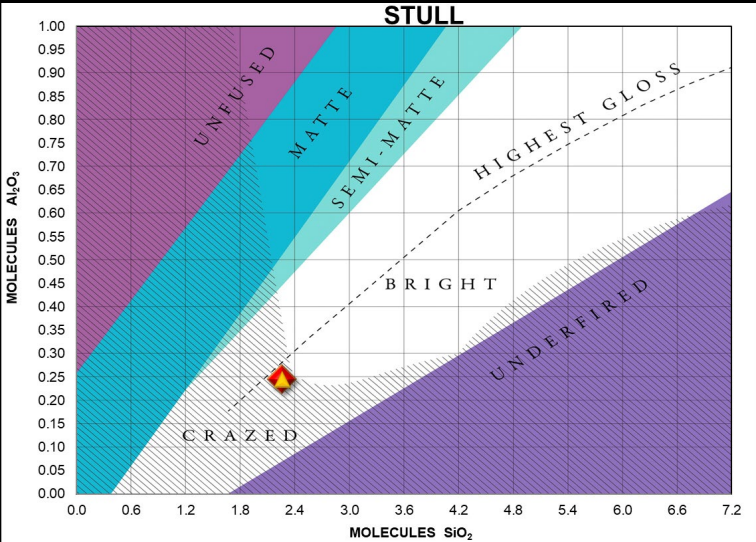


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 3.61	Collective "Al ₂ O ₃ " 0.39	Na ₂ O 0.06	K ₂ O 0.22	MgO 0.35	CaO 0.36
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.18		Alkaline Earths 0.82	
SiO ₂ 2.26	Collective "Al ₂ O ₃ " 0.25	Na ₂ O 0.04	K ₂ O 0.14	MgO 0.22	CaO 0.23
B ₂ O ₃	Al ₂ O ₃ 0.24	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.34
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



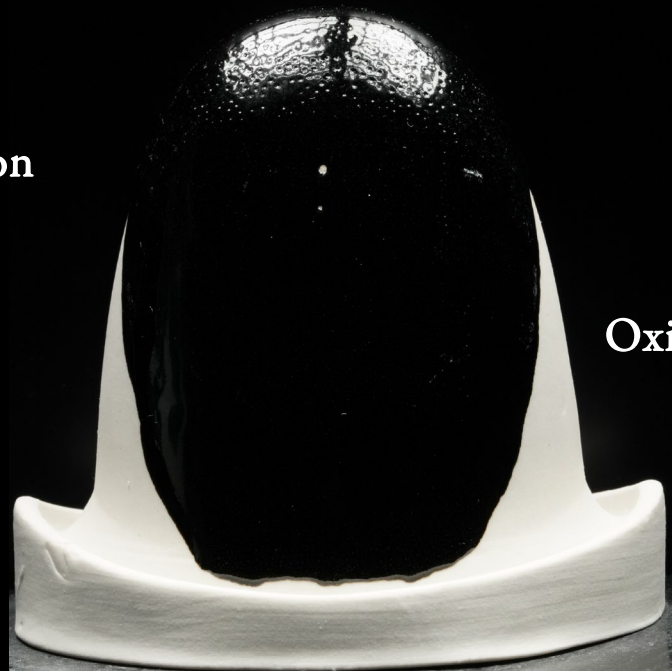
Ceramic
Materials
Workshop

Absence

Weight Substitution
Wollastonite

062422-19

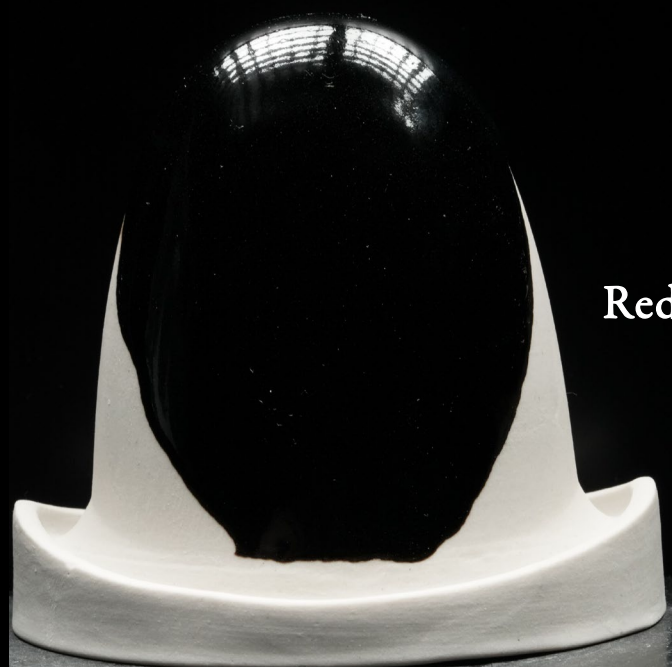
G200 EU	53.45
Wollastonite	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips

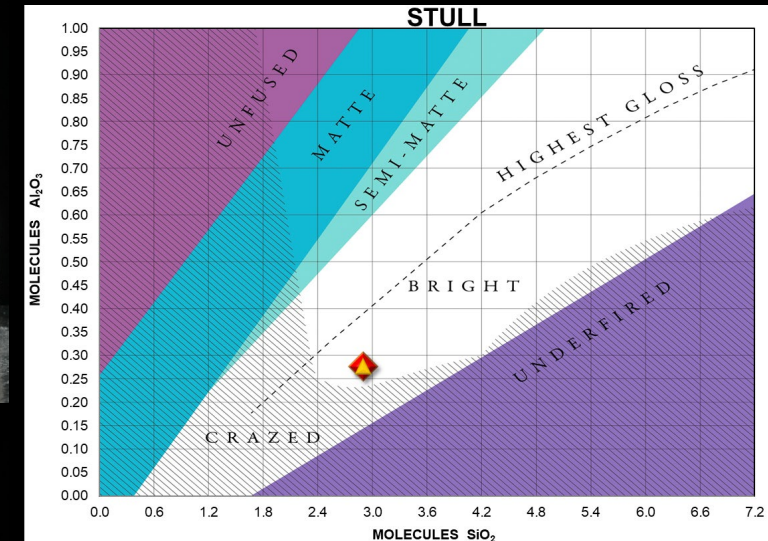


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 10.43 : 1		Alkali Metals 0.34		Alkaline Earths 0.66	
SiO ₂ 4.98	Collective "Al ₂ O ₃ " 0.48	Na ₂ O 0.08	K ₂ O 0.27	MgO 0.03	CaO 0.61
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	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 10.43 : 1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 2.90	Collective "Al ₂ O ₃ " 0.28	Na ₂ O 0.05	K ₂ O 0.15	MgO 0.02	CaO 0.36
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	FeO 0.39
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



Ceramic
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Absence

Weight Substitution
Strontium Carbonate

062422-20

G200 EU	53.45
Strontium Carb	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



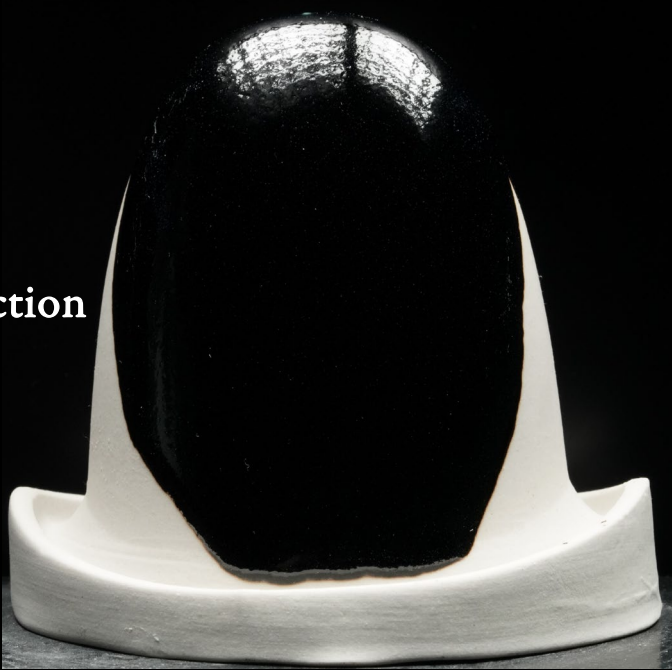
1-3 Second Dip



2-3 Second Dips

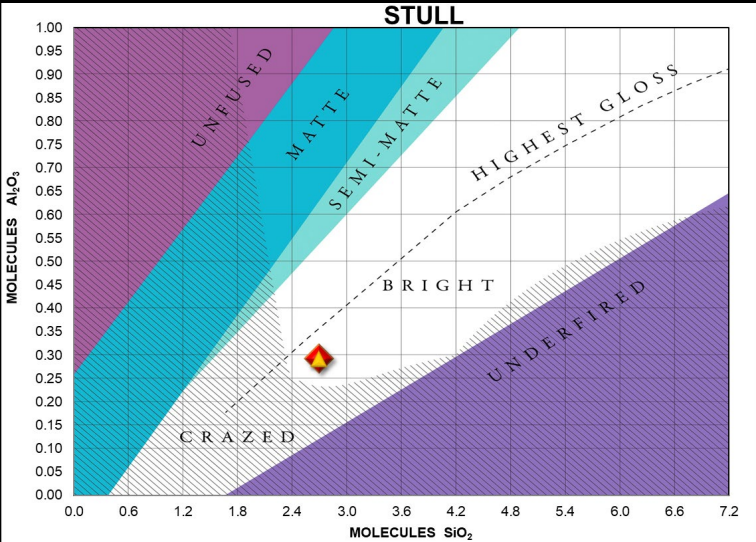


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.38		Alkaline Earths 0.62	
SiO ₂ 4.86	Collective "Al ₂ O ₃ " 0.53	Na ₂ O 0.09	K ₂ O 0.30	MgO 0.01	CaO 0.02
B ₂ O ₃	Al ₂ O ₃ 0.53	Li ₂ O	CuO	SrO 0.58	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.21		Alkaline Earths 0.79	
SiO ₂ 2.69	Collective "Al ₂ O ₃ " 0.29	Na ₂ O 0.05	K ₂ O 0.16	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.29	Li ₂ O	CuO	SrO 0.32	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.41
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.04



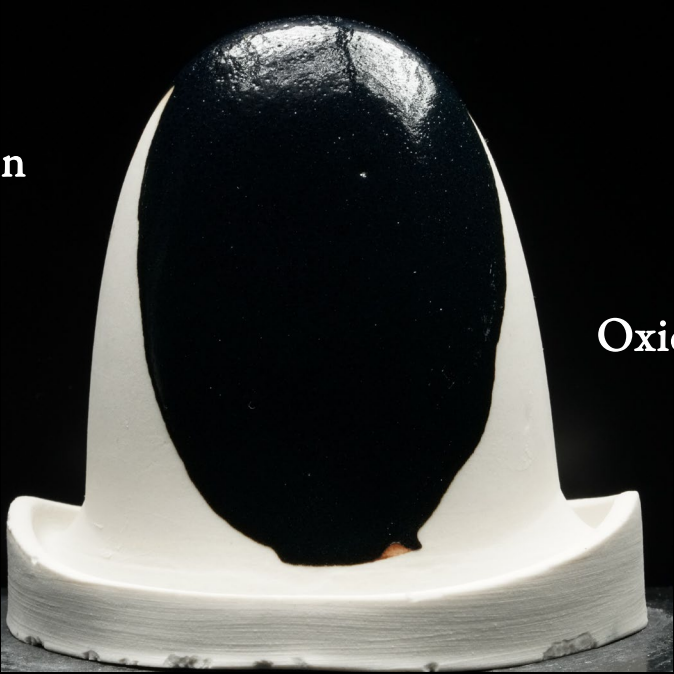
Ceramic
Materials
Workshop

Absence

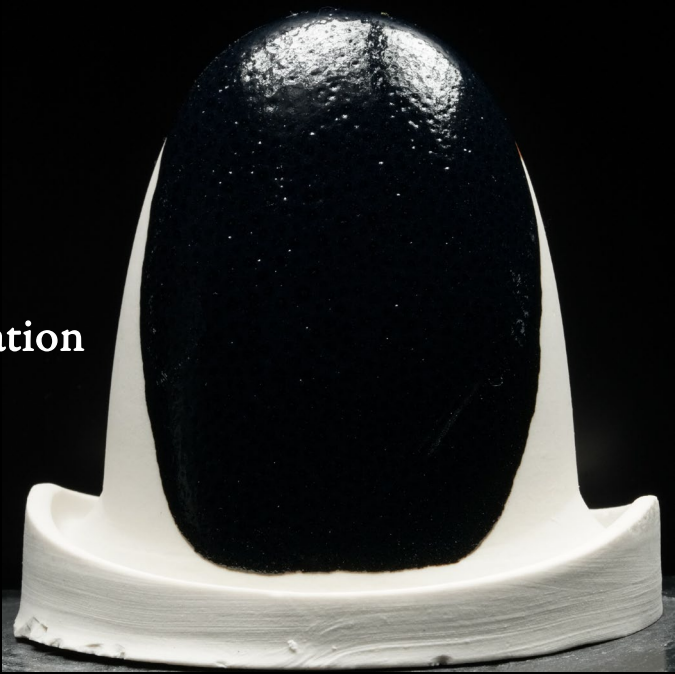
Weight Substitution
Barium Carbonate

062422-21

G200 EU	53.45
Barium Carb	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips

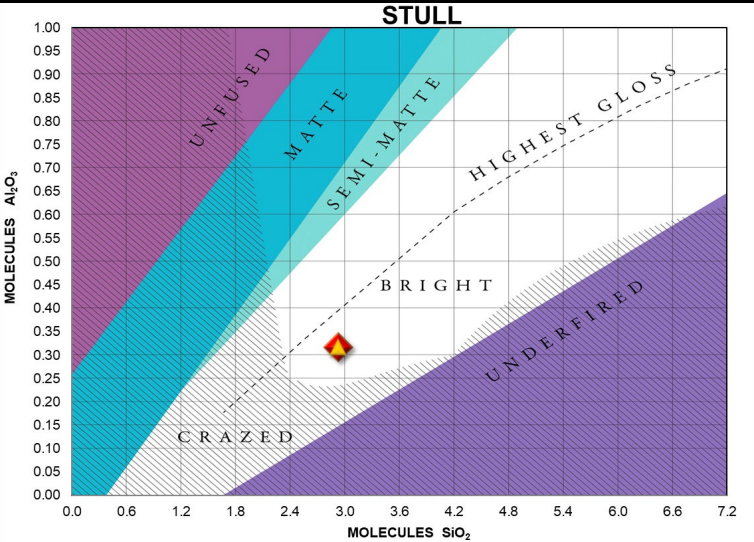


Reduction



UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.45		Alkaline Earths 0.55	
SiO ₂ 5.69	Collective "Al ₂ O ₃ " 0.62	Na ₂ O 0.10	K ₂ O 0.35	MgO 0.01	CaO 0.03
B ₂ O ₃	Al ₂ O ₃ 0.61	Li ₂ O	CuO	SrO	BaO 0.51
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 2.93	Collective "Al ₂ O ₃ " 0.32	Na ₂ O 0.05	K ₂ O 0.18	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.32	Li ₂ O	CuO	SrO	BaO 0.26
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.44
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.05



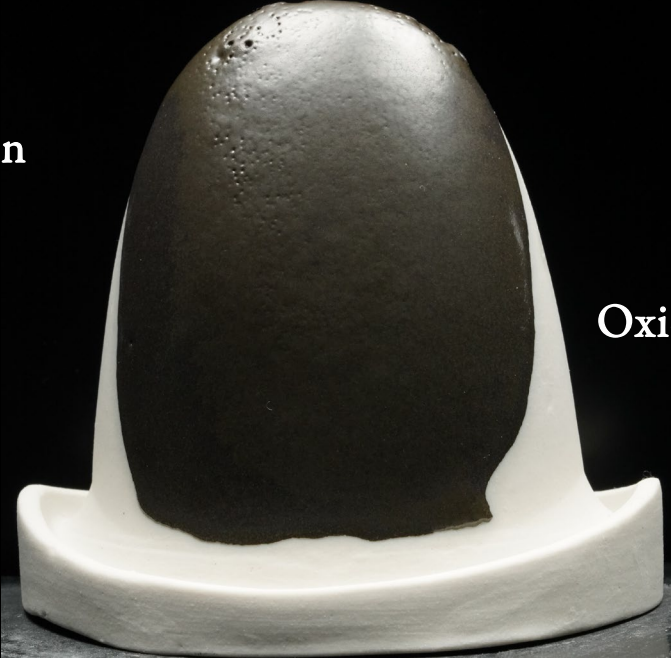
Ceramic
Materials
Workshop

Absence

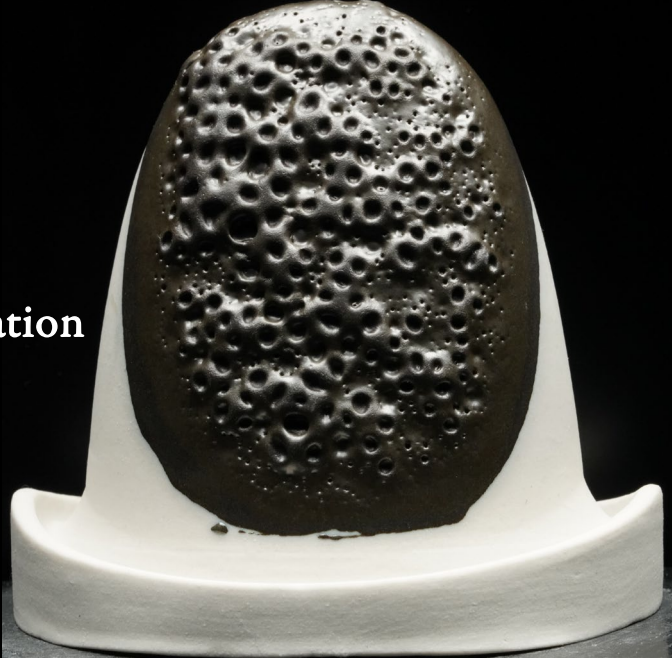
Weight Substitution
Zinc Oxide

062422-22

G200 EU	53.45
Zinc Oxide	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips



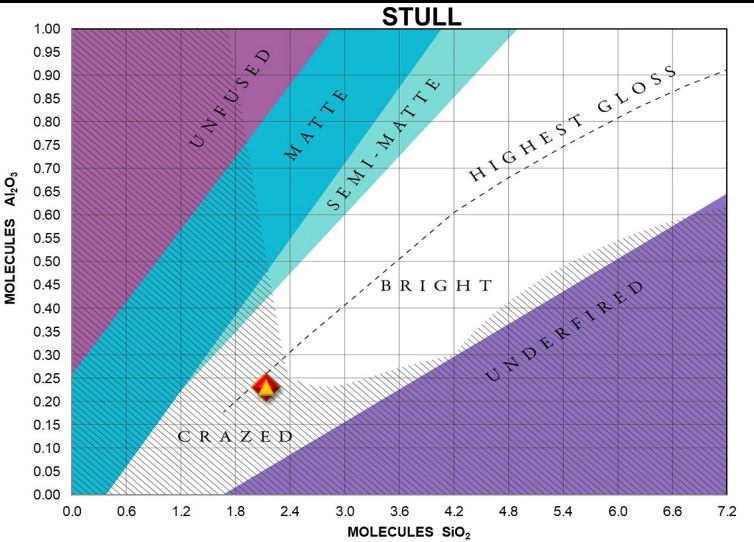
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 3.31	Collective "Al ₂ O ₃ " 0.36	Na ₂ O 0.06	K ₂ O 0.20	MgO 0.00	CaO 0.02
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.71	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 2.14	Collective "Al ₂ O ₃ " 0.23	Na ₂ O 0.04	K ₂ O 0.13	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.23	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.46	FeO 0.32
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
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Absence

Weight Substitution
Bone Ash

062422-23

G200 EU	53.45
Bone Ash	18.03
EPK	6.06
Flint	22.46
Red Iron Oxide	7.68
Cobalt Carbonate	1.97
Water	60



1-3 Second Dip



2-3 Second Dips



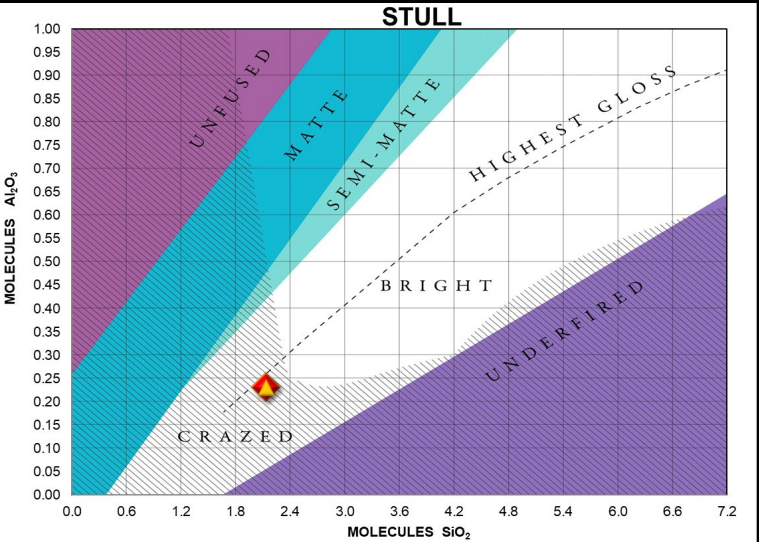
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.37		Alkaline Earths 0.63	
SiO ₂ 4.72	Collective "Al ₂ O ₃ " 0.51	Na ₂ O 0.08	K ₂ O 0.29	MgO 0.01	CaO 0.61
B ₂ O ₃	Al ₂ O ₃ 0.51	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 0.32		MnO ₂	CoO



EUMF

SiO ₂ :Al ₂ O ₃ Ratio 9.22 : 1		Alkali Metals 0.17		Alkaline Earths 0.83	
SiO ₂ 2.14	Collective "Al ₂ O ₃ " 0.23	Na ₂ O 0.04	K ₂ O 0.13	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.23	Li ₂ O	CuO	SrO	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO 0.46	FeO 0.32
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO 0.03



Ceramic
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