

Katz Matte- Δ 10

Lab 5a-Color Wheel

Katz Matte

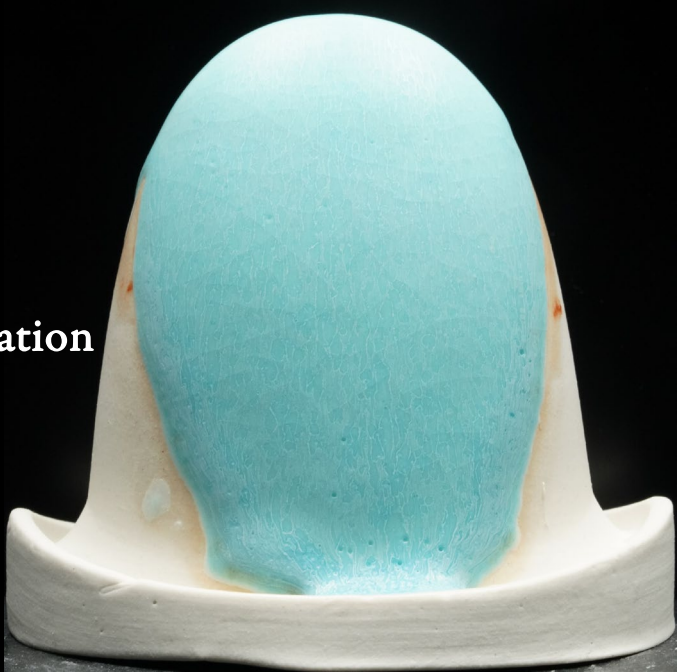
Original

062522-1

Neph Sy	42.84
Strontium Carb	35.37
EPK	12.90
Flint	8.89
Copper Carbonate	1.01
Water	60



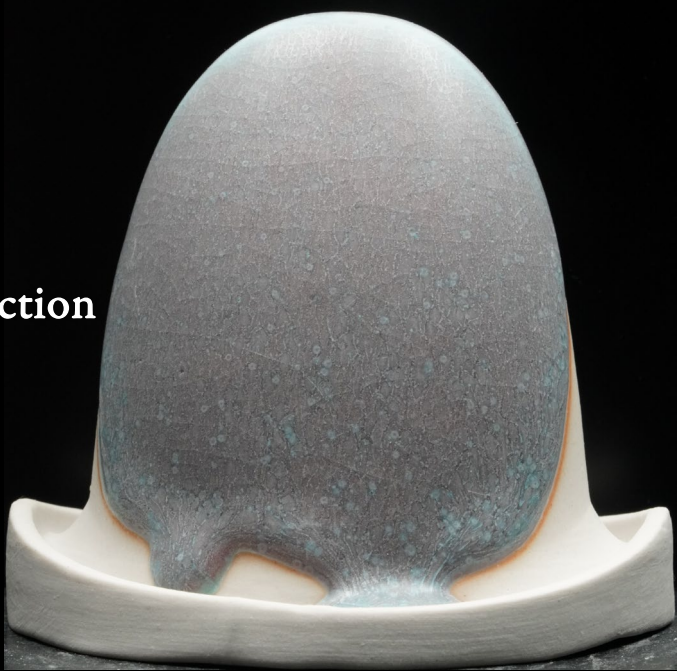
1-3 Second Dip



2-3 Second Dips



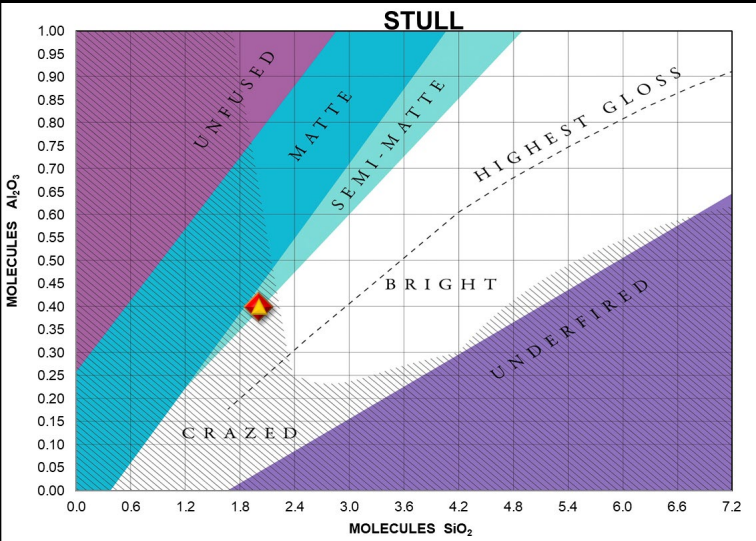
Reduction



Oxidation

UMF

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	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 5.00 : 1		Alkali Metals 0.27		Alkaline Earths 0.73	
SiO ₂ 2.06	Collective "Al ₂ O ₃ " 0.41	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.41	Li ₂ O	CuO	SrO 0.71	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

Chrome Oxide

0.5%

Oxidation

Reduction

1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

2%



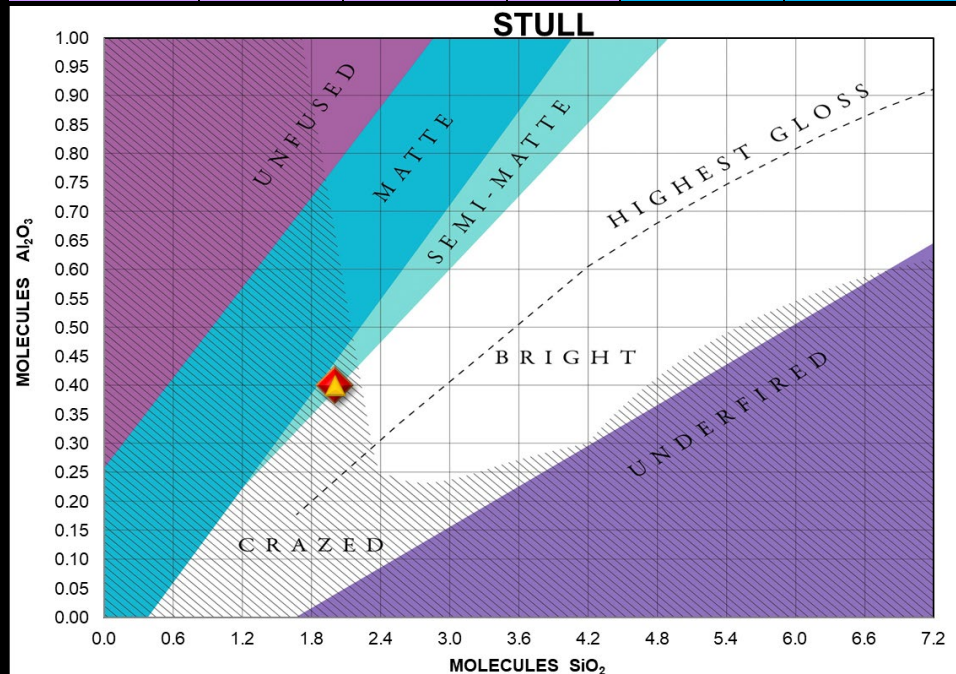
Ceramic
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Workshop

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Chrome Oxide

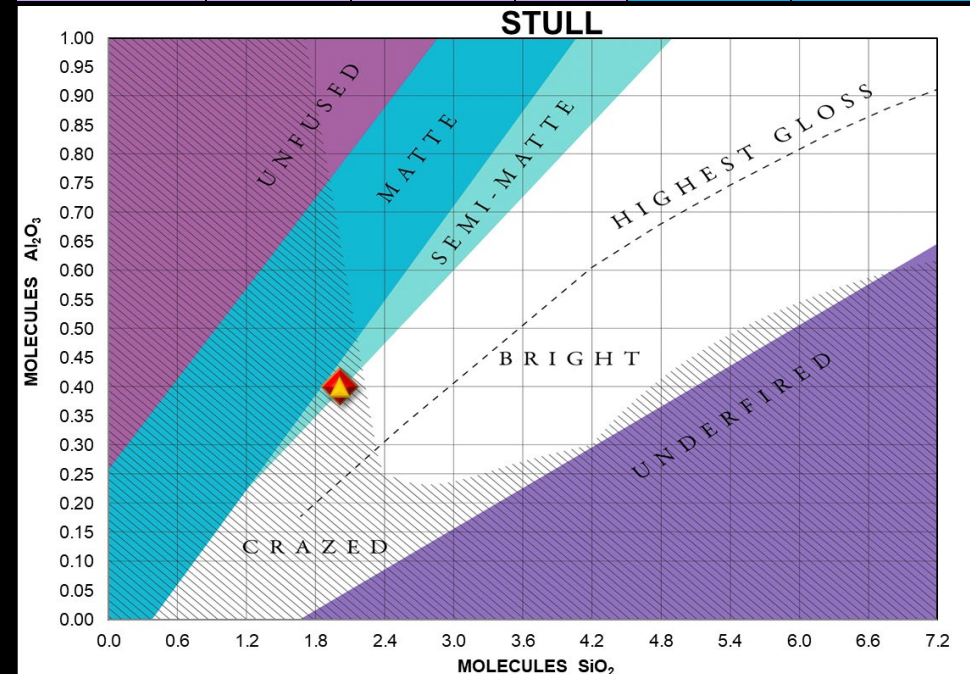
0.5%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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 0.01	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



2%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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 0.04	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Cobalt Carbonate

0.5%

Oxidation

Reduction

1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

2%



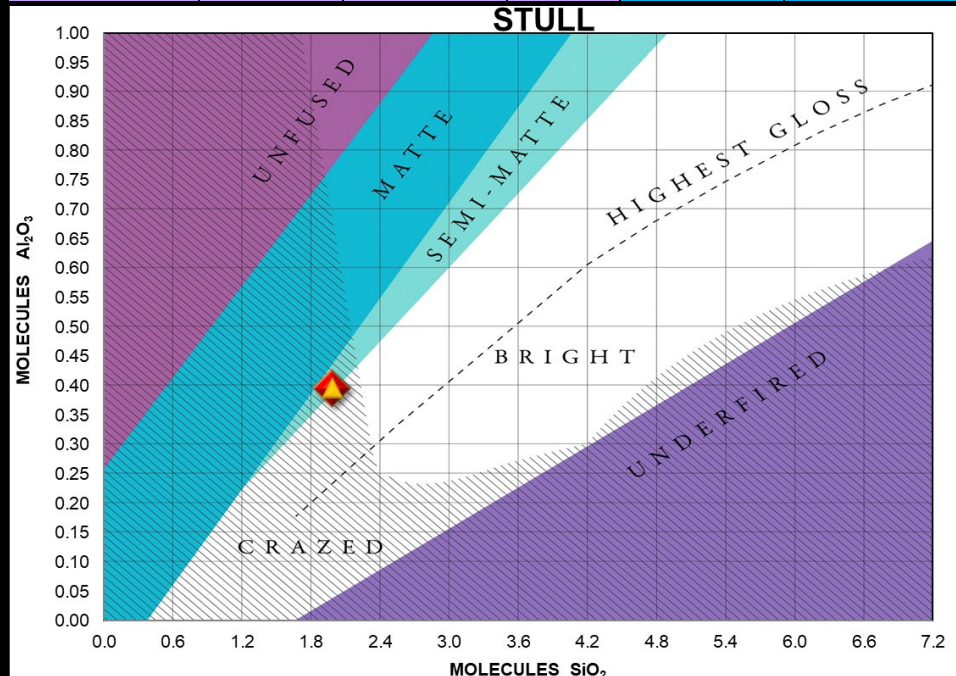
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Cobalt Carbonate

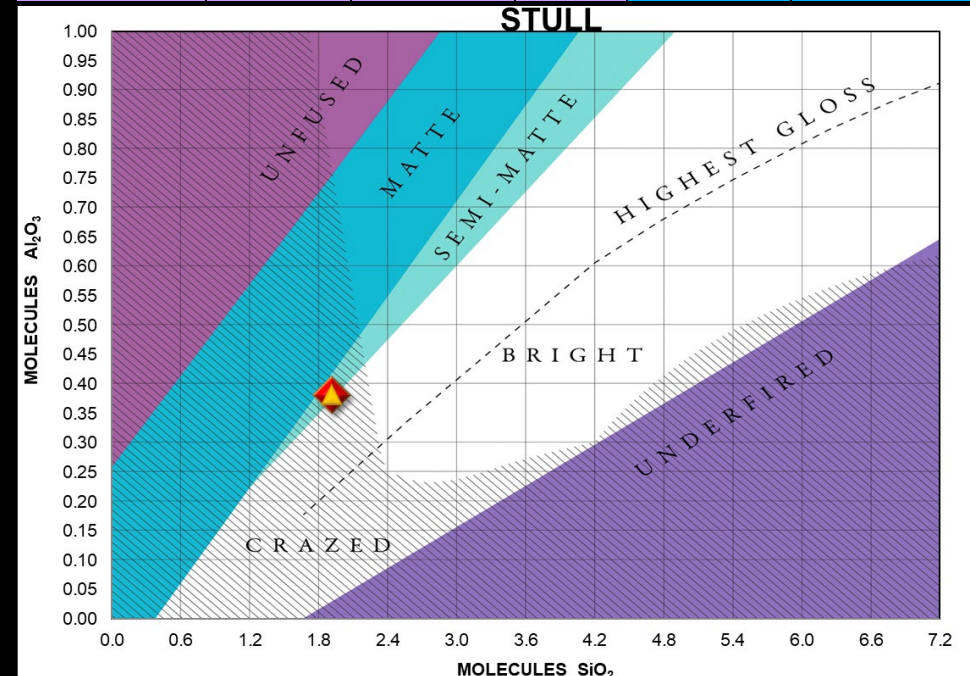
0.5%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 1.98	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO 0.02	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 0.01



2%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 1.91	Collective "Al ₂ O ₃ " 0.38	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.38	Li ₂ O	CuO 0.02	SrO 0.66	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 0.05



Cobalt Oxide

0.5%

Oxidation

Reduction

1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

2%



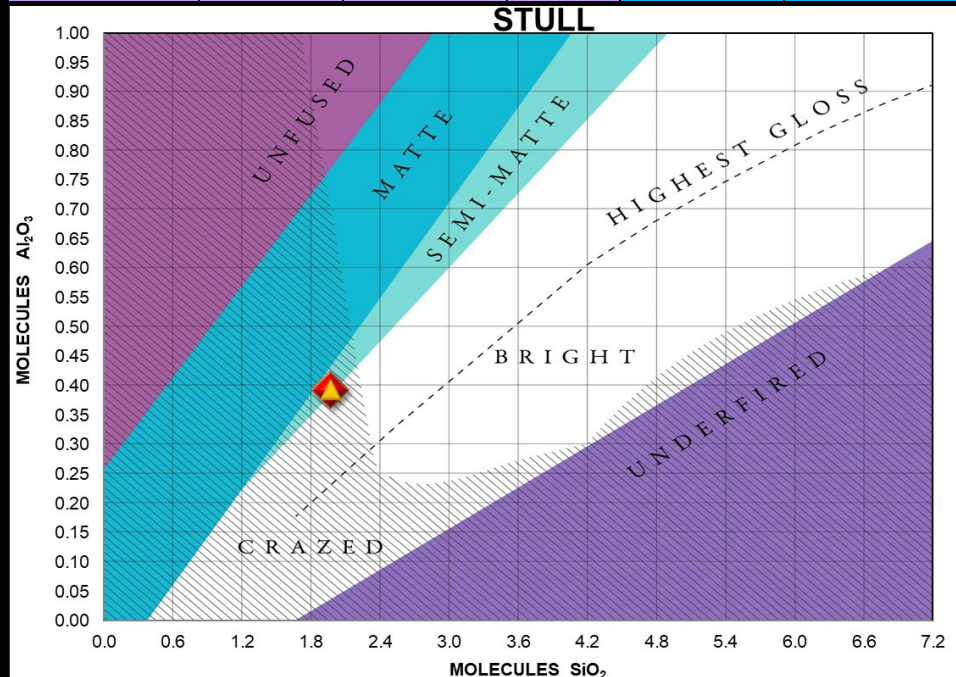
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Cobalt Oxide

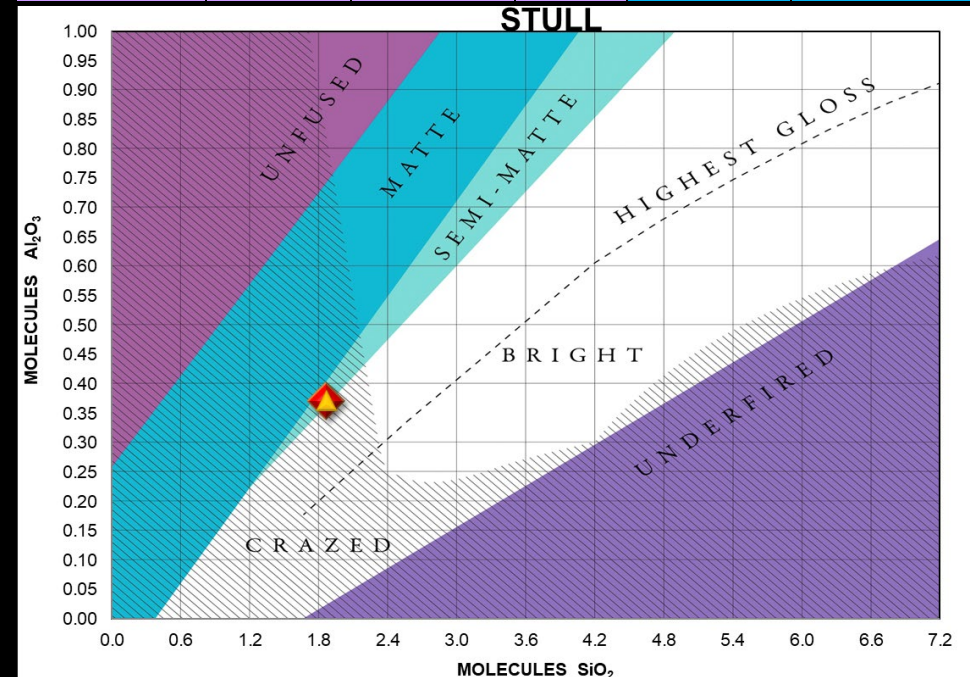
0.5%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 1.97	Collective "Al ₂ O ₃ " 0.39	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO 0.02	SrO 0.68	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 0.02



2%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.27		Alkaline Earths 0.73	
SiO ₂ 1.86	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.19	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.37	Li ₂ O	CuO 0.02	SrO 0.64	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 0.07



Copper Carbonate

Oxidation

Reduction

1%



1-3 Second Dip



2-3 Second Dips

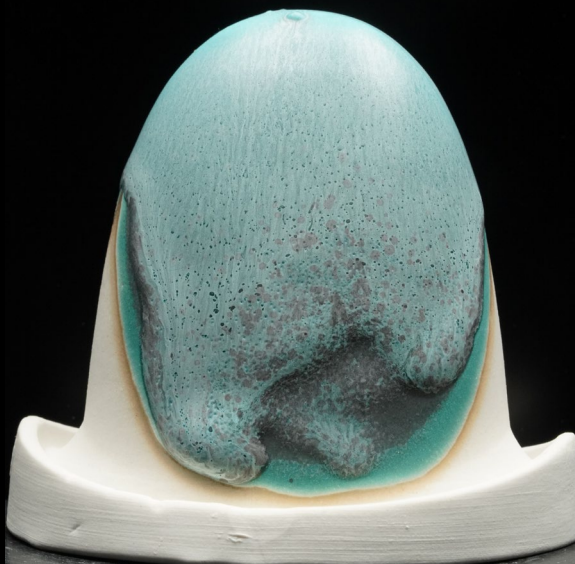


1-3 Second Dip



2-3 Second Dips

4%



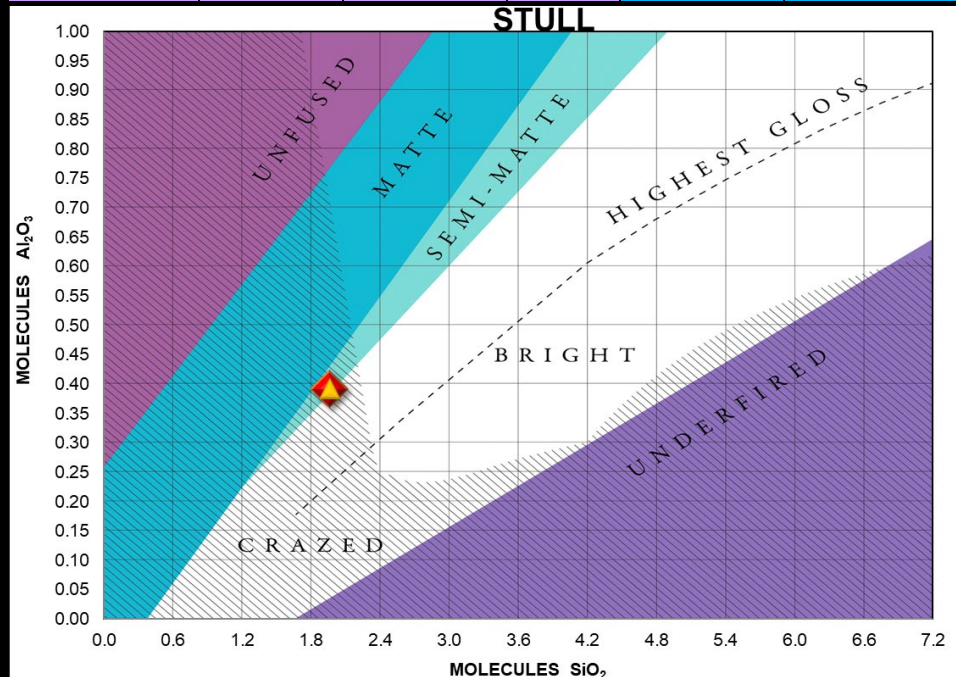
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Copper Carbonate

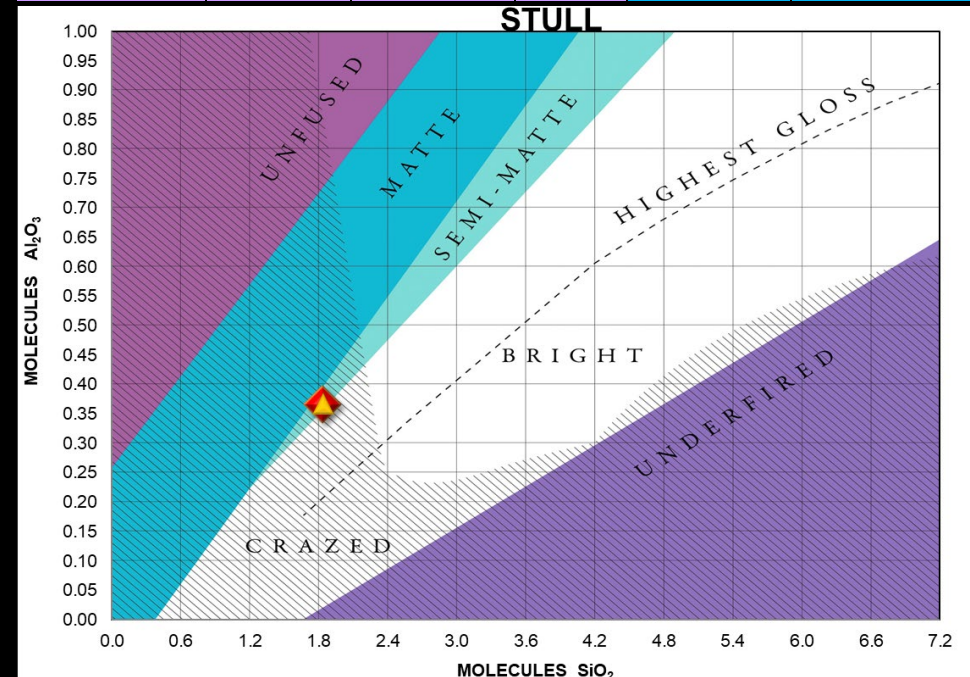
1%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.31		Alkaline Earths 0.69	
SiO ₂ 1.96	Collective "Al ₂ O ₃ " 0.39	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO	SrO 0.68	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



4%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.35		Alkaline Earths 0.65	
SiO ₂ 1.84	Collective "Al ₂ O ₃ " 0.37	Na ₂ O 0.19	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.37	Li ₂ O	CuO	SrO 0.63	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

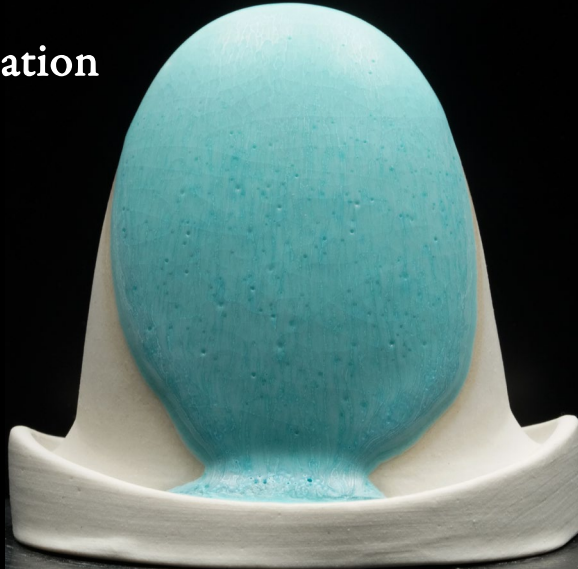


Copper Oxide-Black

Oxidation

Reduction

1%



1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

4%



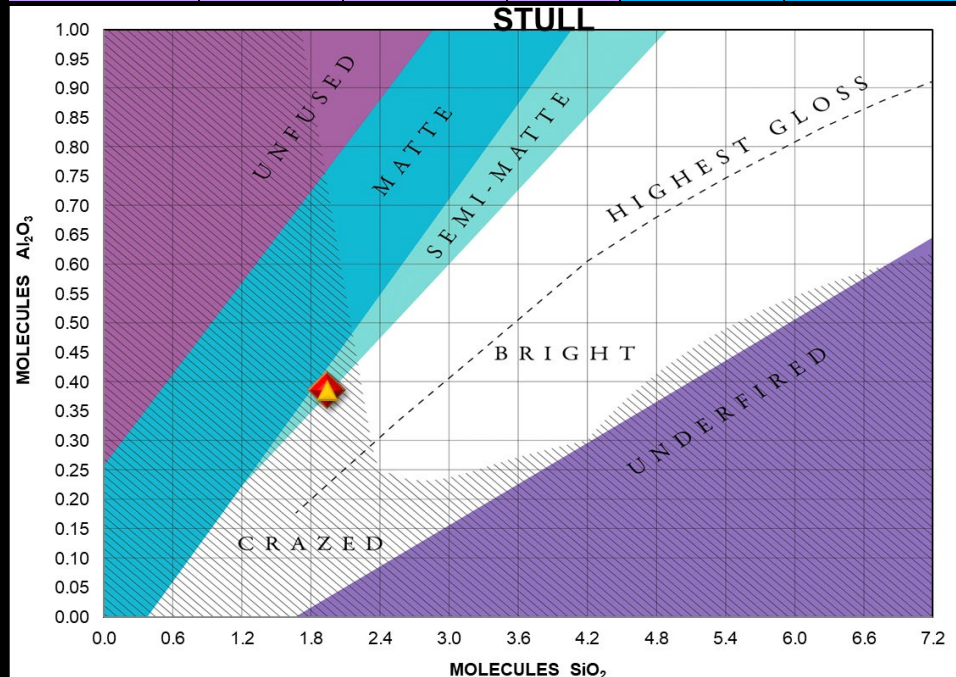
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Copper Oxide-Black

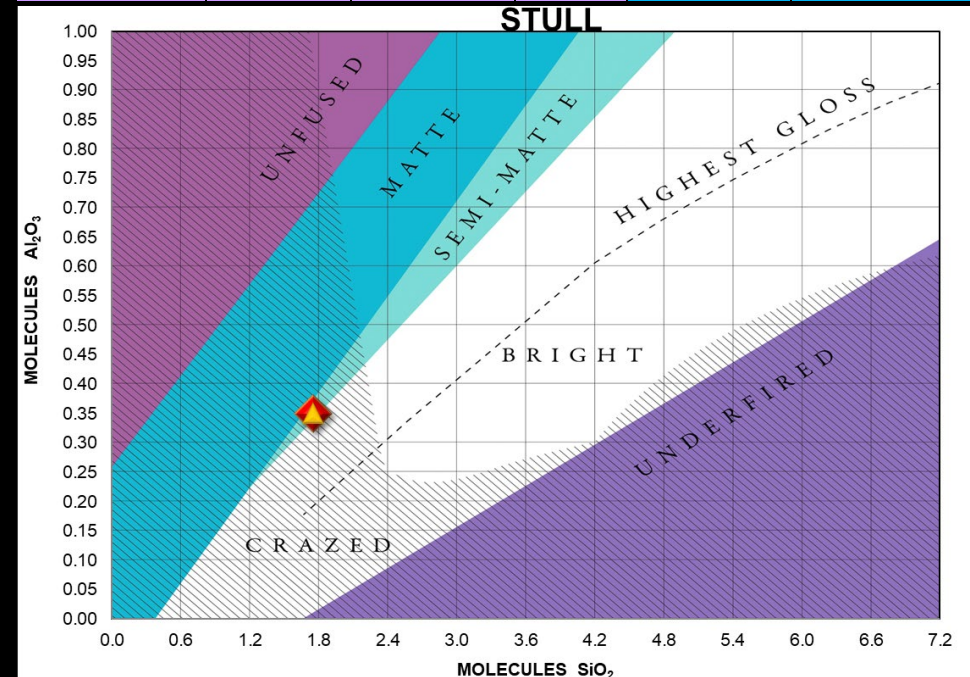
1%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.31		Alkaline Earths 0.69	
SiO ₂ 1.94	Collective "Al ₂ O ₃ " 0.39	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO	SrO 0.67	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



4%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.38		Alkaline Earths 0.62	
SiO ₂ 1.75	Collective "Al ₂ O ₃ " 0.35	Na ₂ O 0.18	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.35	Li ₂ O	CuO	SrO 0.61	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

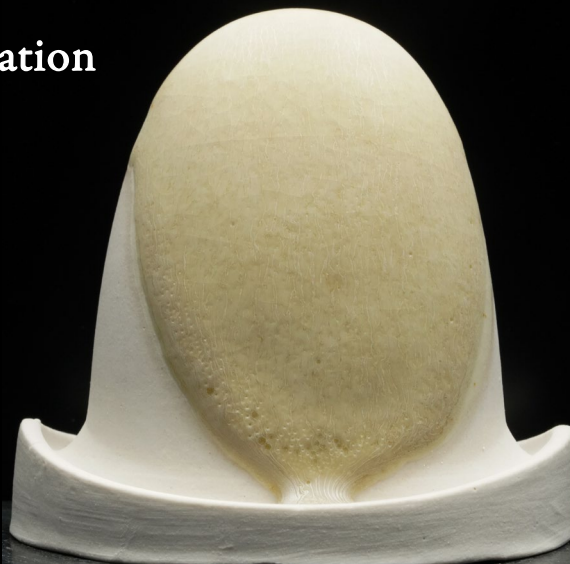


Red Iron Oxide

Oxidation

Reduction

3%



1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

9%



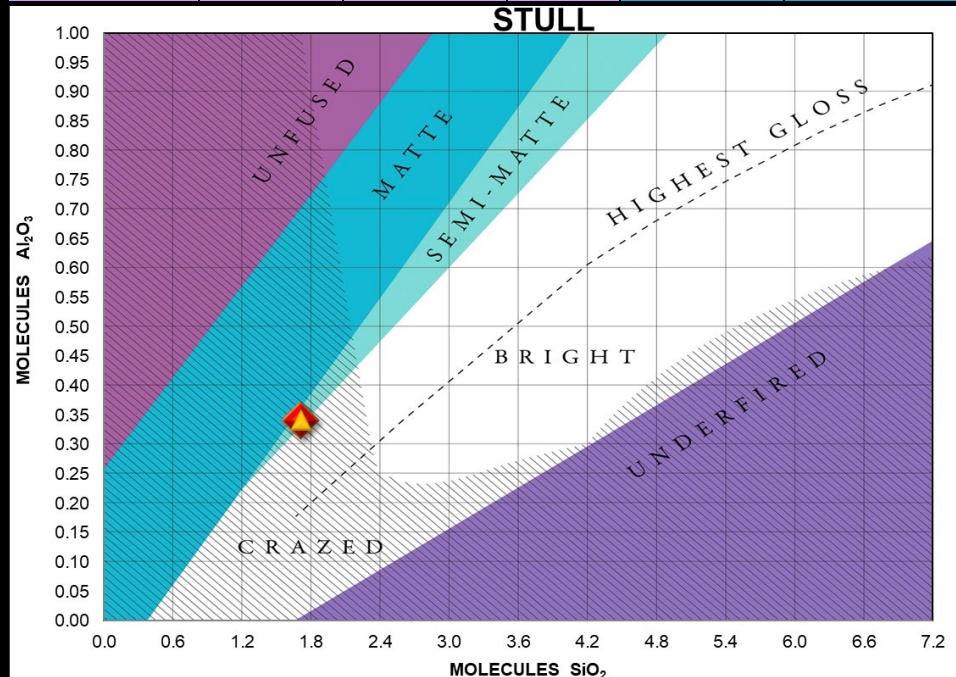
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Red Iron Oxide

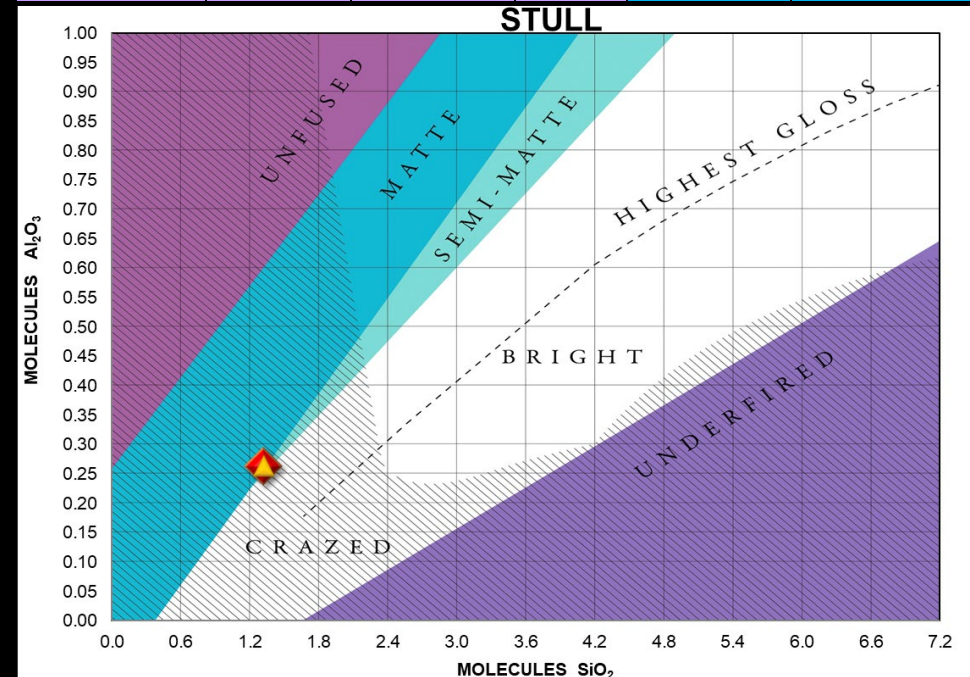
3%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.71	Collective "Al ₂ O ₃ " 0.34	Na ₂ O 0.18	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.34	Li ₂ O	CuO	SrO 0.59	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.15
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



9%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.19		Alkaline Earths 0.81	
SiO ₂ 1.32	Collective "Al ₂ O ₃ " 0.26	Na ₂ O 0.14	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.26	Li ₂ O	CuO	SrO 0.46	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



Black Iron Oxide

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



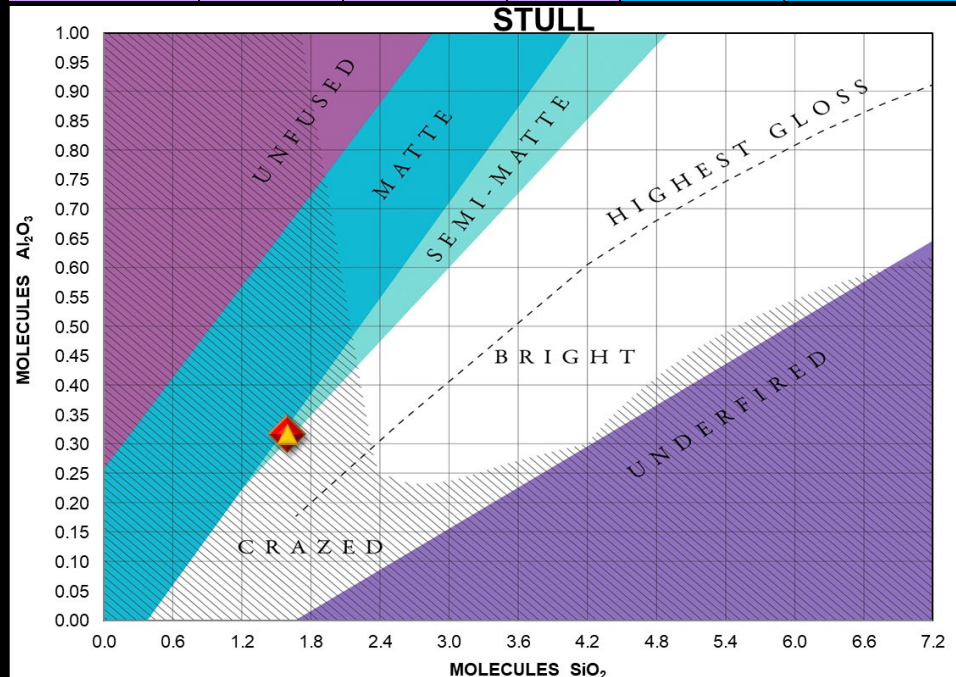
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Black Iron Oxide

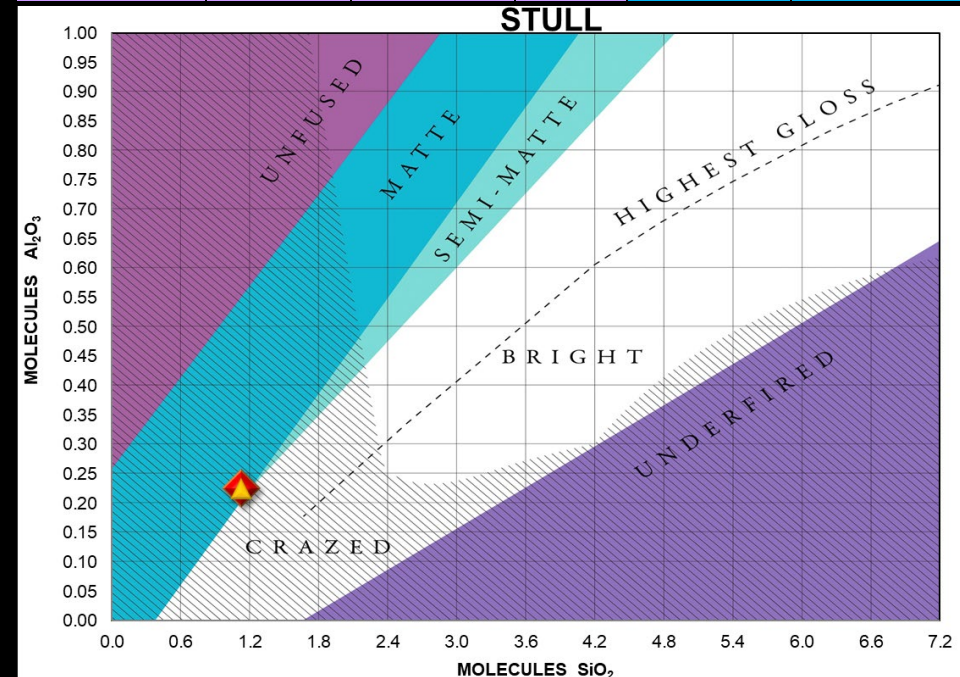
3%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.23		Alkaline Earths 0.77	
SiO ₂ 1.59	Collective "Al ₂ O ₃ " 0.32	Na ₂ O 0.16	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.32	Li ₂ O	CuO	SrO 0.55	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.21
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



9%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.16		Alkaline Earths 0.84	
SiO ₂ 1.13	Collective "Al ₂ O ₃ " 0.23	Na ₂ O 0.12	K ₂ O 0.03	MgO 0.00	CaO 0.00
B ₂ O ₃	Al ₂ O ₃ 0.22	Li ₂ O	CuO	SrO 0.39	BaO
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



Yellow Iron Oxide

Oxidation

Reduction

3%



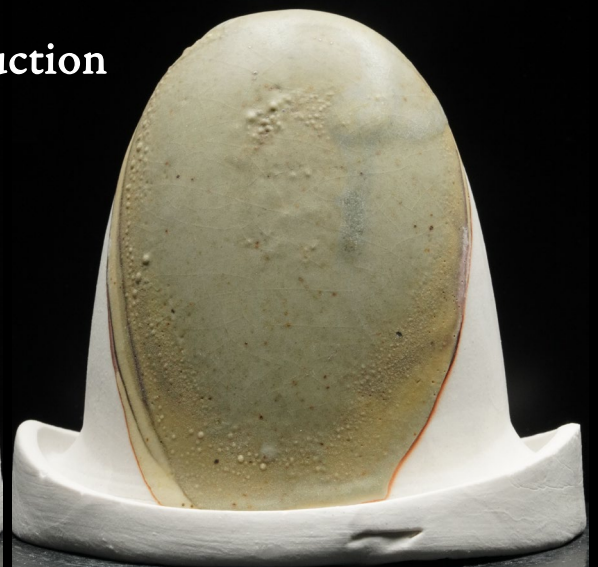
1-3 Second Dip



2-3 Second Dips

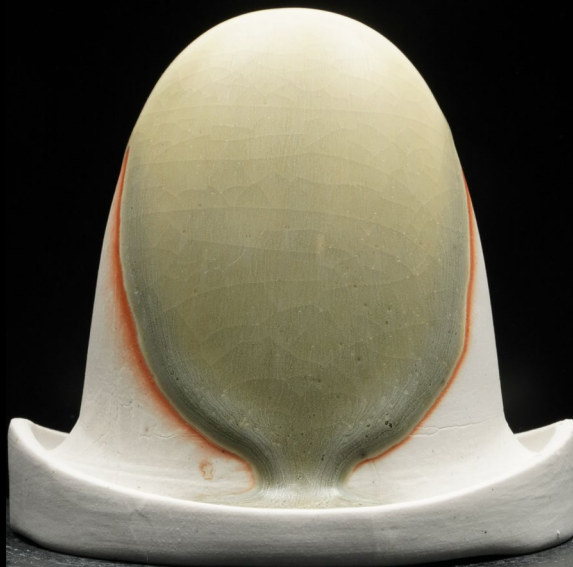


1-3 Second Dip



2-3 Second Dips

9%



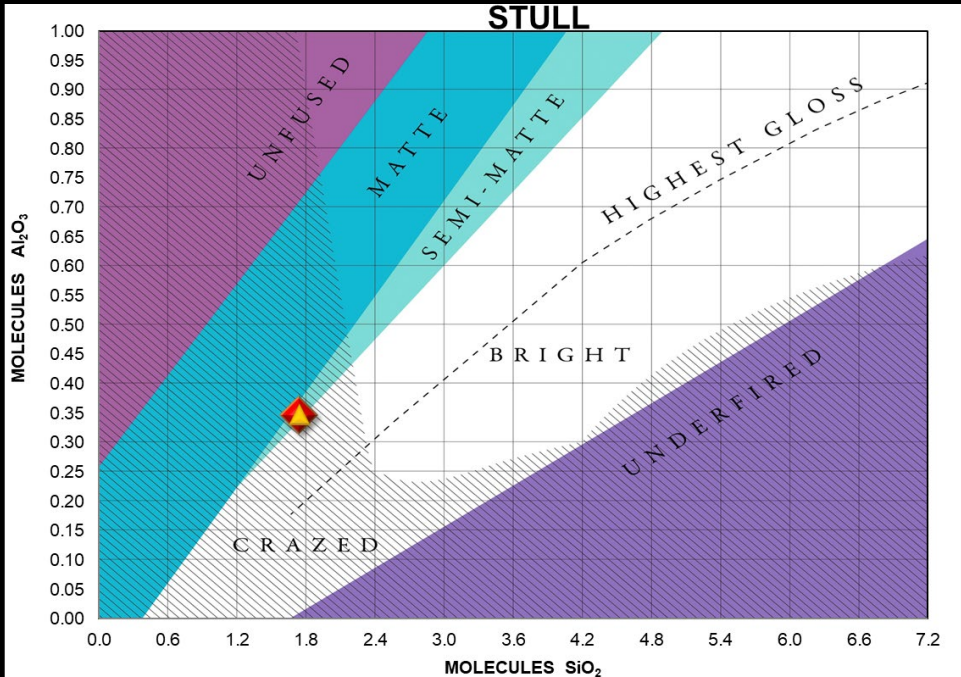
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Yellow Iron Oxide

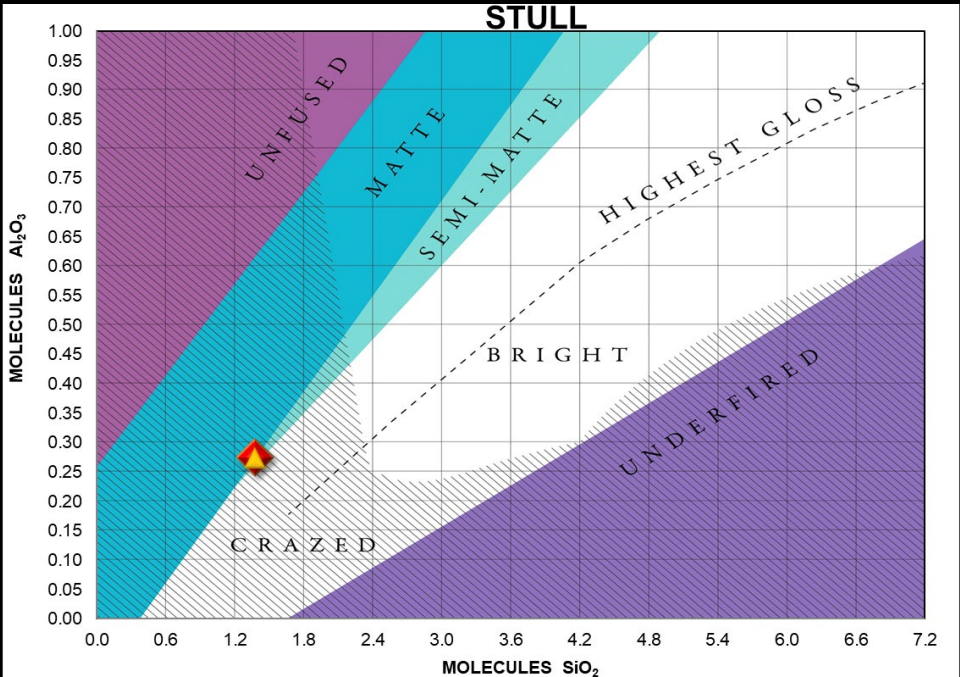
3%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.25		Alkaline Earths 0.75	
SiO ₂ 1.74	Collective "Al ₂ O ₃ " 0.35	Na ₂ O 0.18	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.35	Li ₂ O	CuO	SrO 0.60	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



9%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.20		Alkaline Earths 0.80	
SiO ₂ 1.38	Collective "Al ₂ O ₃ " 0.28	Na ₂ O 0.14	K ₂ O 0.04	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.27	Li ₂ O	CuO	SrO 0.48	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



Manganese Dioxide

Oxidation

Reduction

1%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

4%



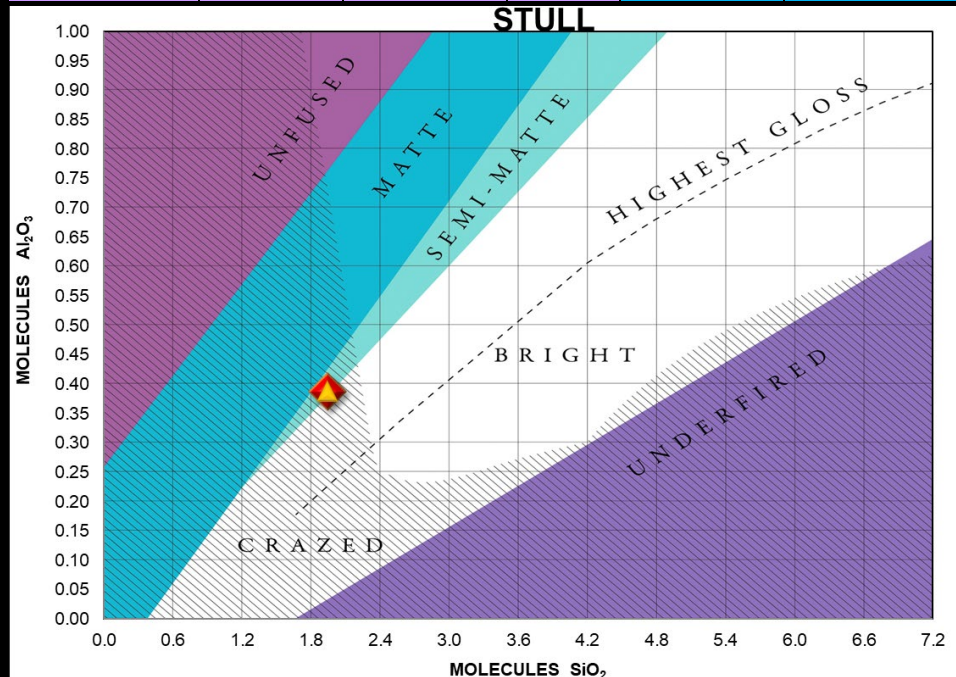
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Manganese Dioxide

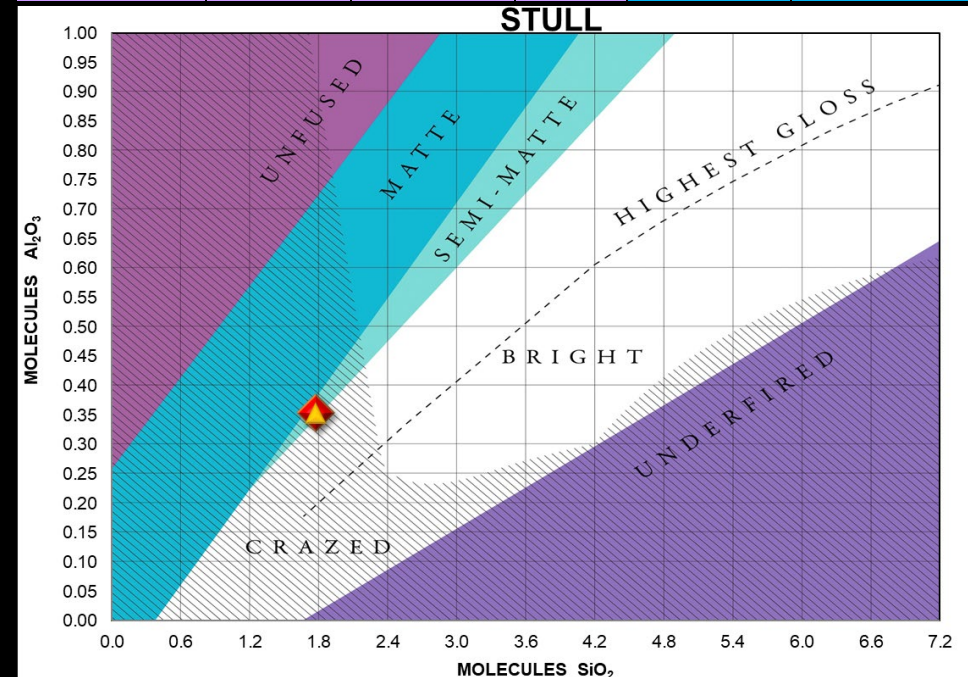
1%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 1.94	Collective "Al ₂ O ₃ " 0.39	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO	SrO 0.67	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 0.03	CoO



4%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.26		Alkaline Earths 0.74	
SiO ₂ 1.77	Collective "Al ₂ O ₃ " 0.35	Na ₂ O 0.18	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.35	Li ₂ O	CuO	SrO 0.61	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 0.12	CoO



Vanadium Pentoxide

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



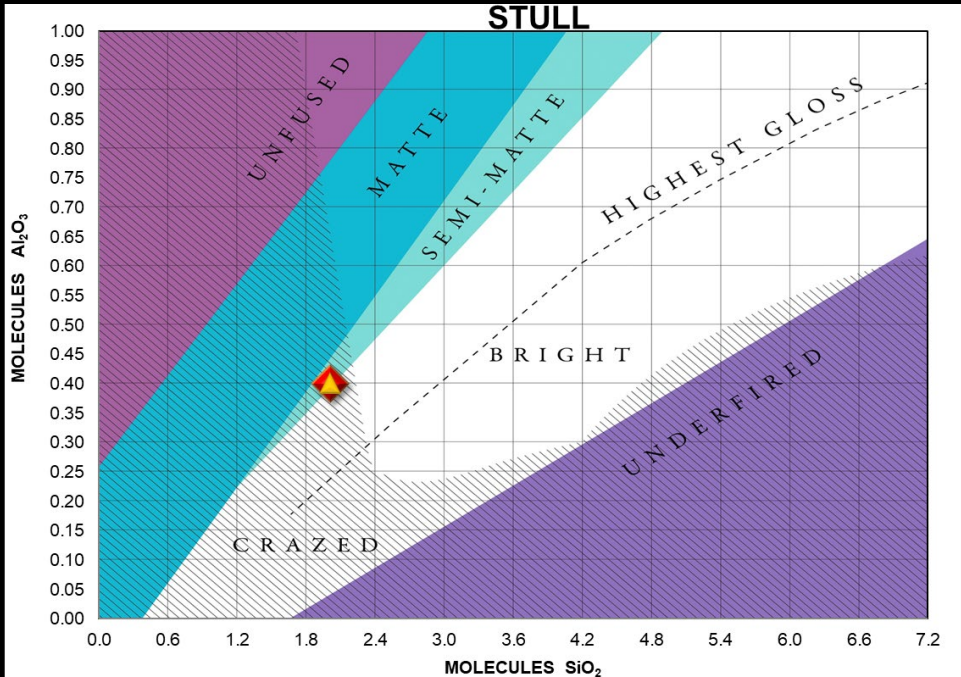
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Vanadium Pentoxide

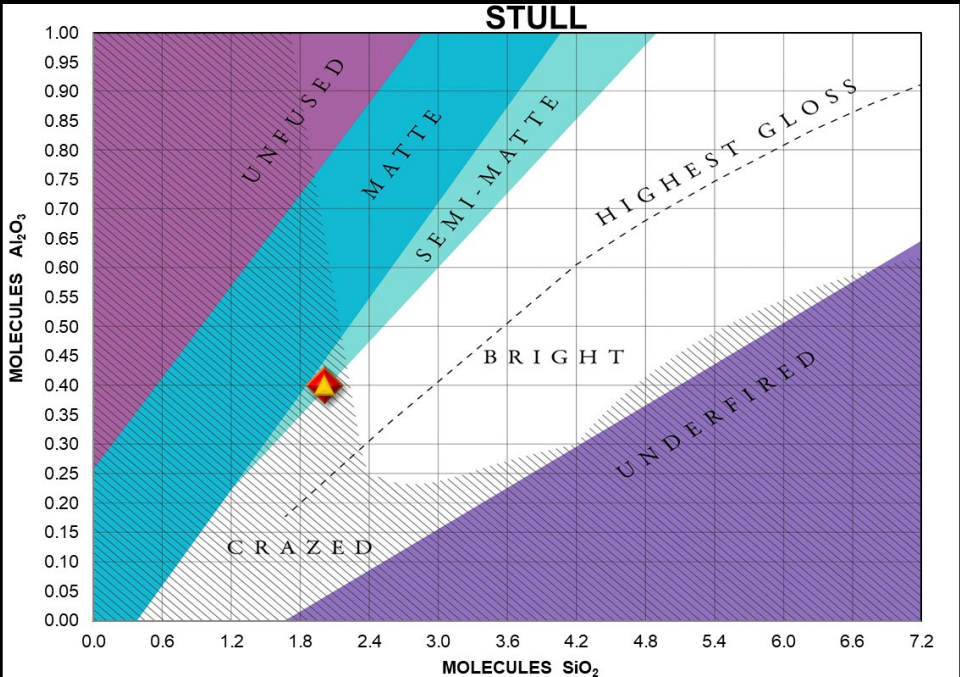
3%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



9%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



Dark Rutile

Oxidation

Reduction

3%



1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

9%



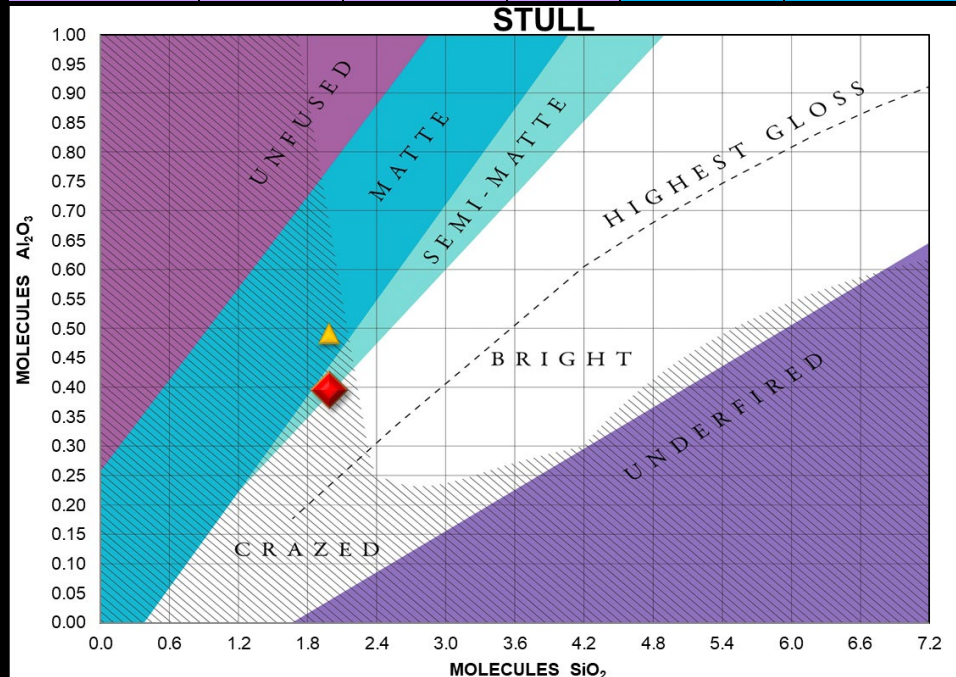
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Dark Rutile

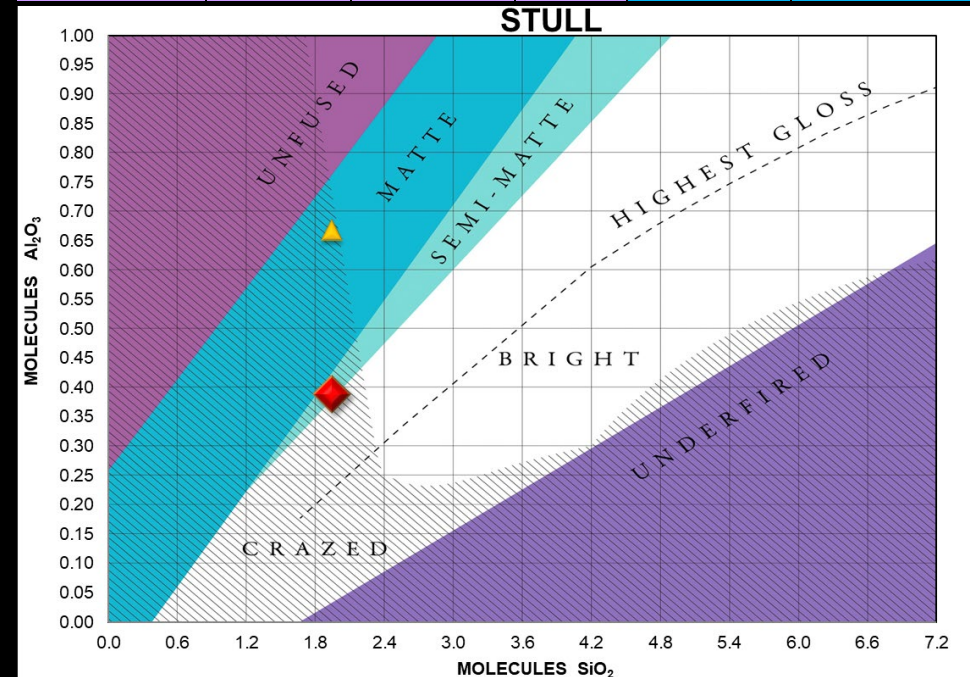
3%

SiO ₂ :Al ₂ O ₃ Ratio 4.03 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 1.99	Collective "Al ₂ O ₃ " 0.49	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	SrO 0.69	BaO
TiO ₂ 0.10	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.02
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



9%

SiO ₂ :Al ₂ O ₃ Ratio 2.90 :1		Alkali Metals 0.28		Alkaline Earths 0.72	
SiO ₂ 1.94	Collective "Al ₂ O ₃ " 0.67	Na ₂ O 0.20	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.39	Li ₂ O	CuO 0.02	SrO 0.67	BaO
TiO ₂ 0.28	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.04
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Light Rutile

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



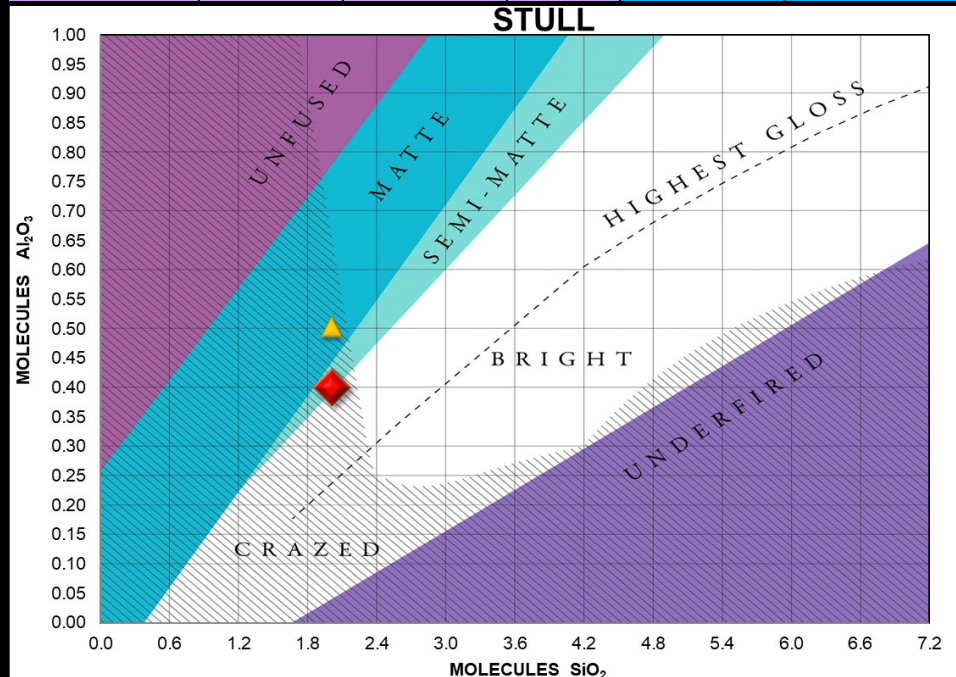
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Light Rutile

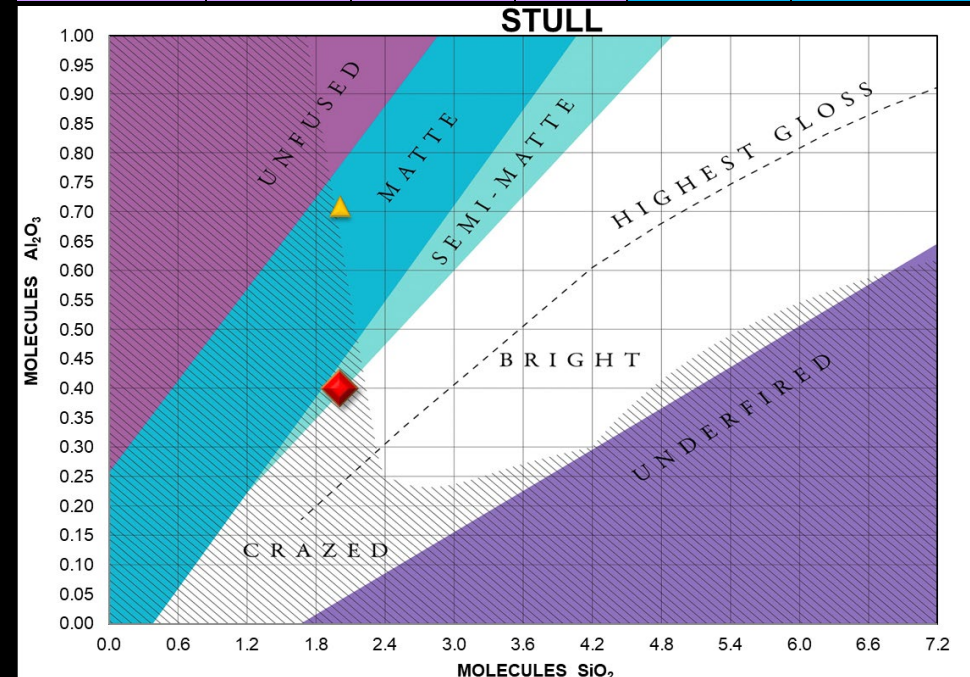
3%

SiO ₂ :Al ₂ O ₃ Ratio 3.98 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.50	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO 0.69	BaO
TiO ₂ 0.10	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



9%

SiO ₂ :Al ₂ O ₃ Ratio 2.82 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.71	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO 0.69	BaO
TiO ₂ 0.31	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Titanium Dioxide

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



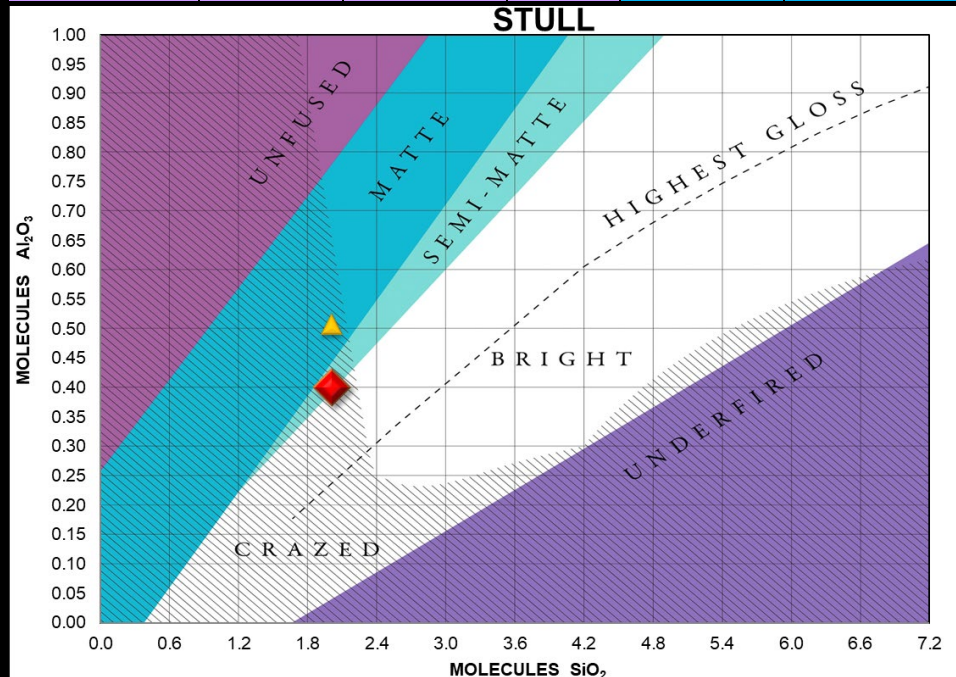
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Titanium Dioxide

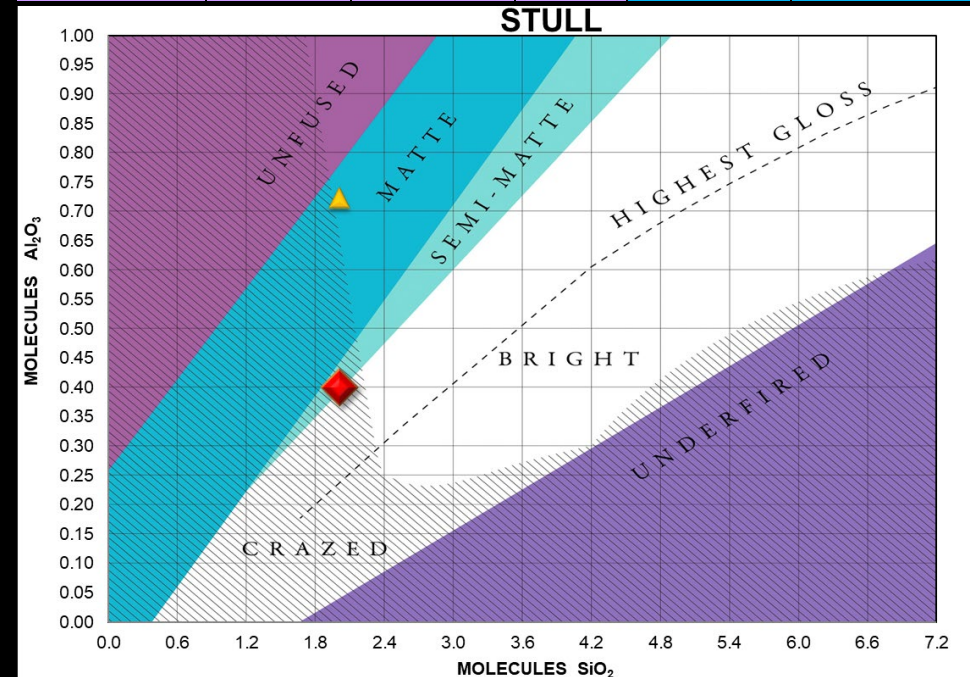
3%

SiO ₂ :Al ₂ O ₃ Ratio 3.95 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.51	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO 0.69	BaO
TiO ₂ 0.11	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



9%

SiO ₂ :Al ₂ O ₃ Ratio 2.77 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.72	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO	SrO 0.69	BaO
TiO ₂ 0.32	NiO	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Nickel Carbonate

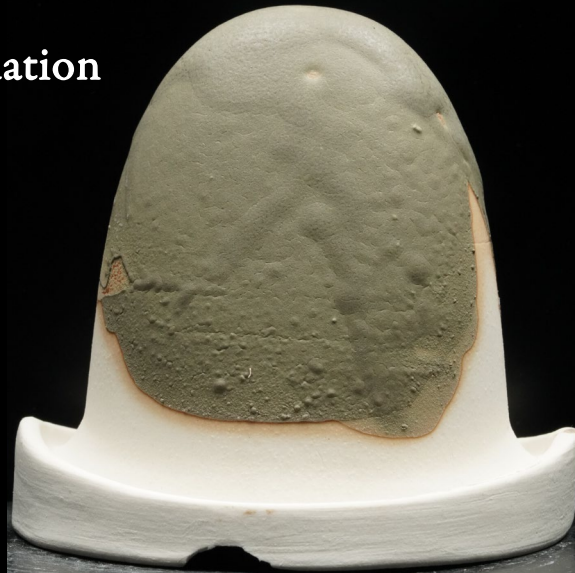
Oxidation

Reduction

2%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

6%



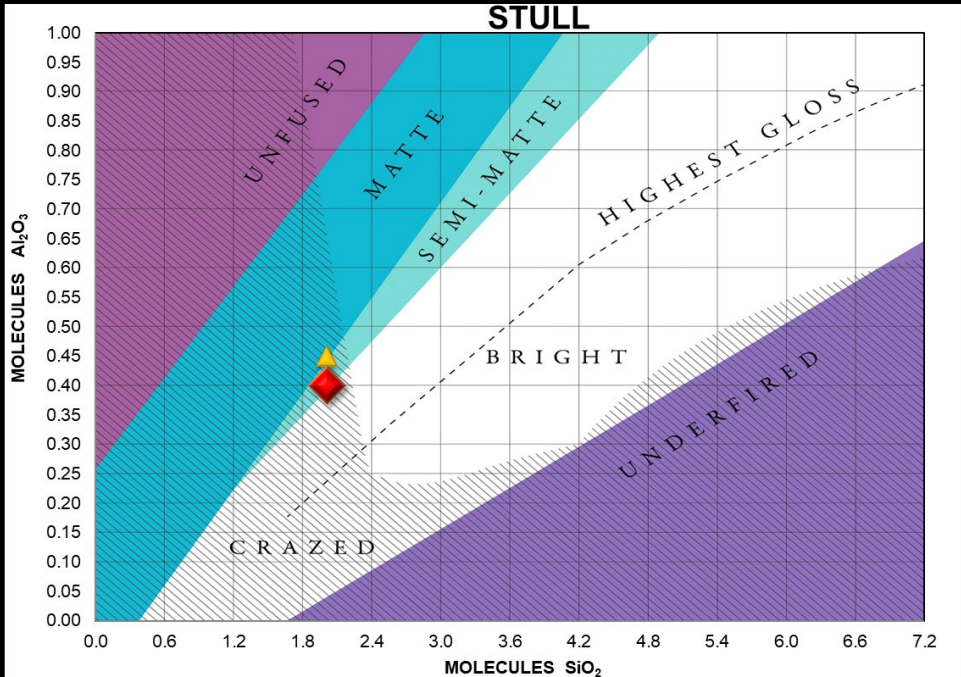
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Nickel Carbonate

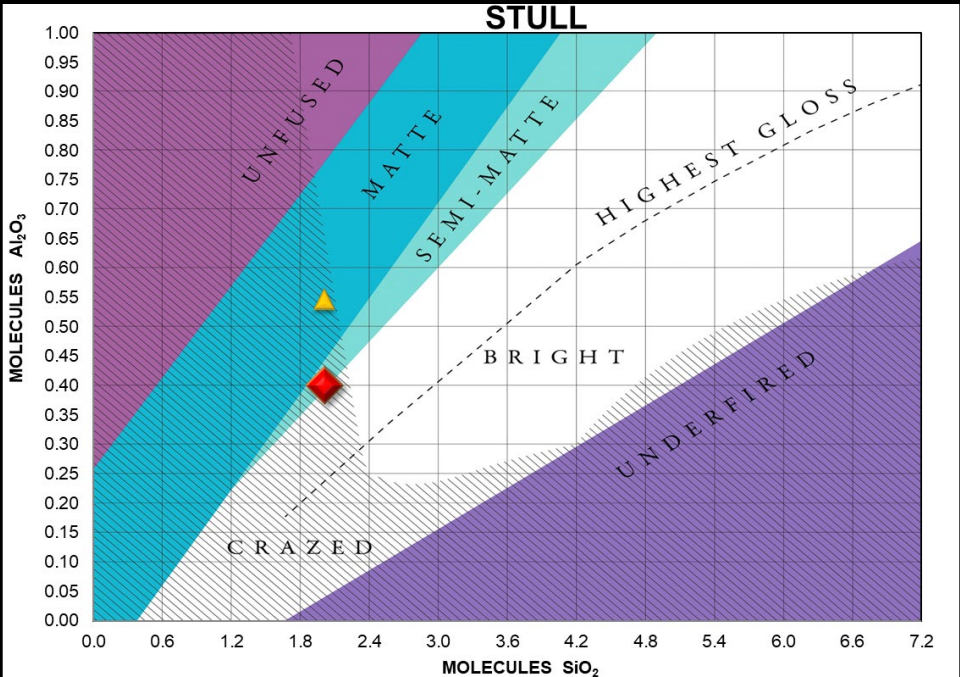
2%

SiO ₂ :Al ₂ O ₃ Ratio 4.46 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.45	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	SrO 0.69	BaO
TiO ₂ 0.00	NiO 0.05	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



6%

SiO ₂ :Al ₂ O ₃ Ratio 3.66 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.55	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	SrO 0.69	BaO
TiO ₂ 0.00	NiO 0.15	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Nickel Oxide-Black

Oxidation

Reduction

2%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

6%



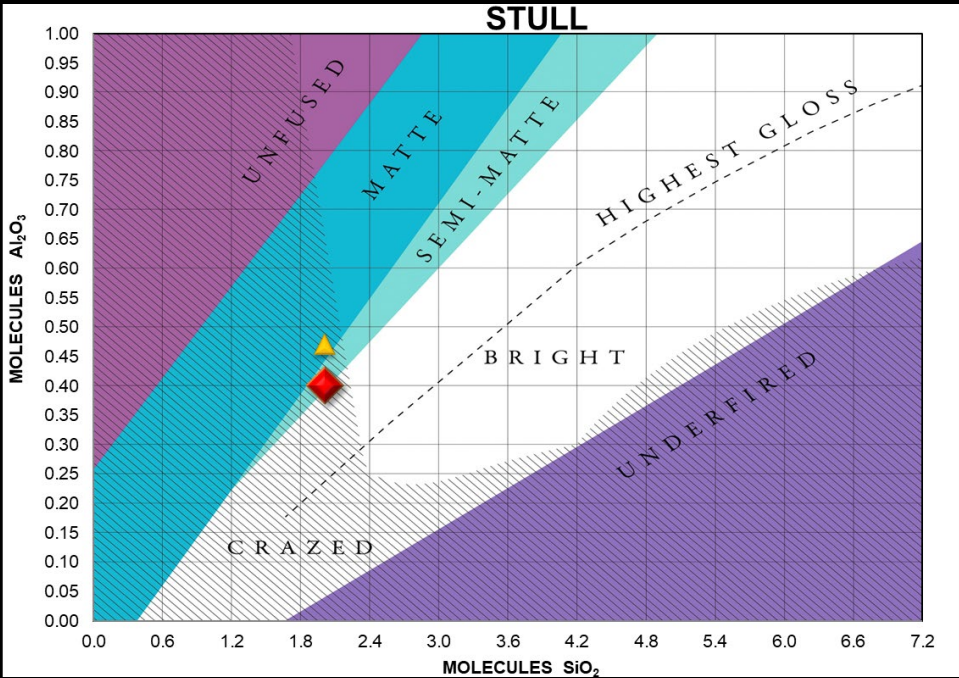
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Nickel Oxide-Black

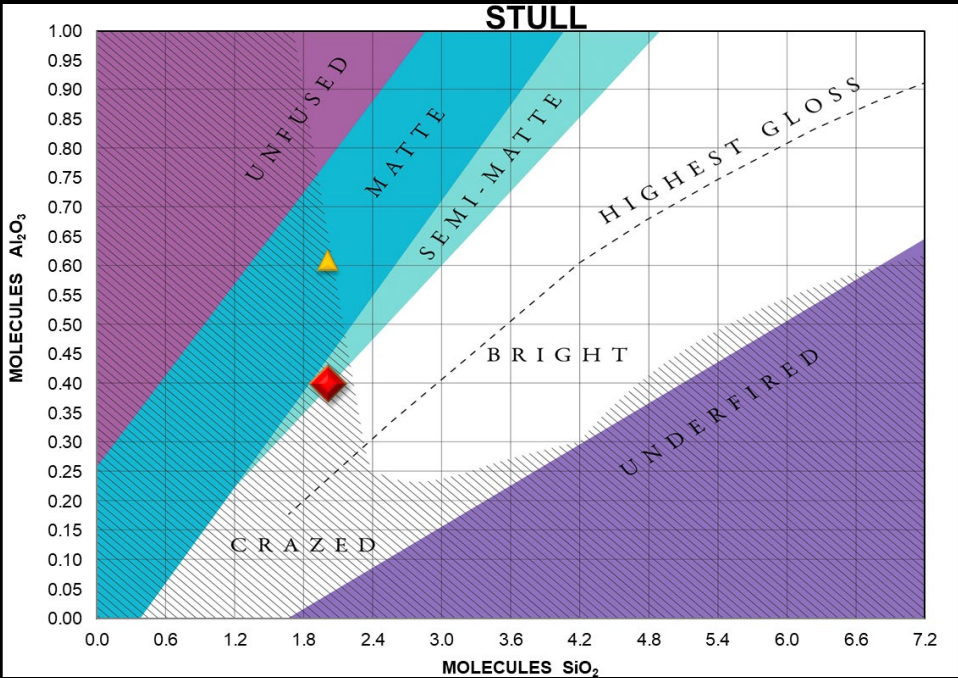
2%

SiO ₂ :Al ₂ O ₃ Ratio 4.26 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.47	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	SrO 0.69	BaO
TiO ₂ 0.00	NiO 0.07	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



6%

SiO ₂ :Al ₂ O ₃ Ratio 3.29 : 1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.61	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	Li ₂ O	CuO 0.02	SrO 0.69	BaO
TiO ₂ 0.00	NiO 0.21	Bi ₂ O ₃	SnO ₂	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Tin Oxide

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

6%



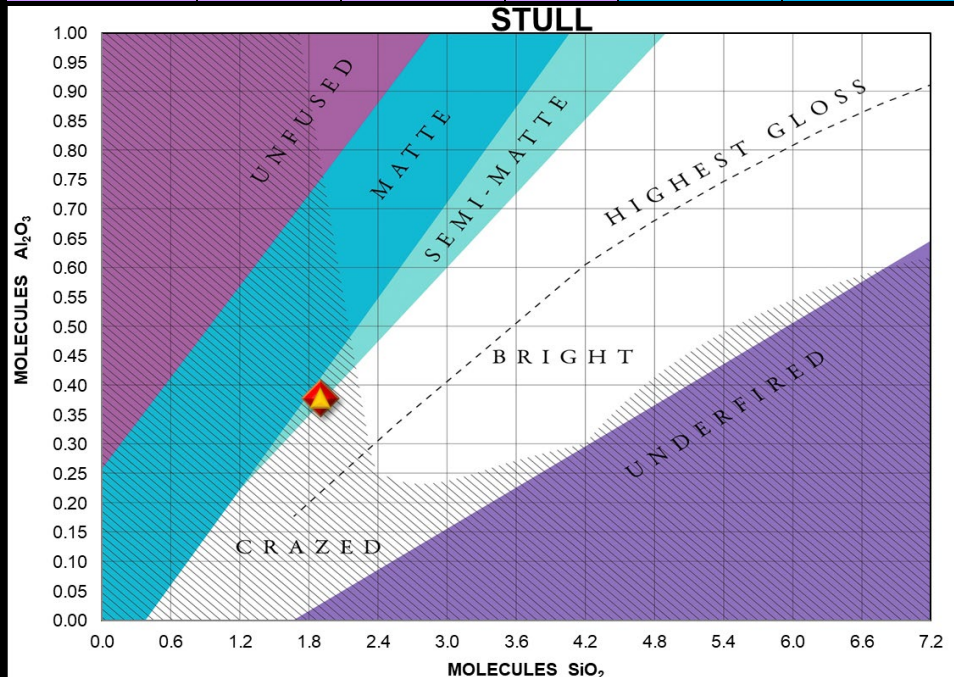
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Tin Oxide

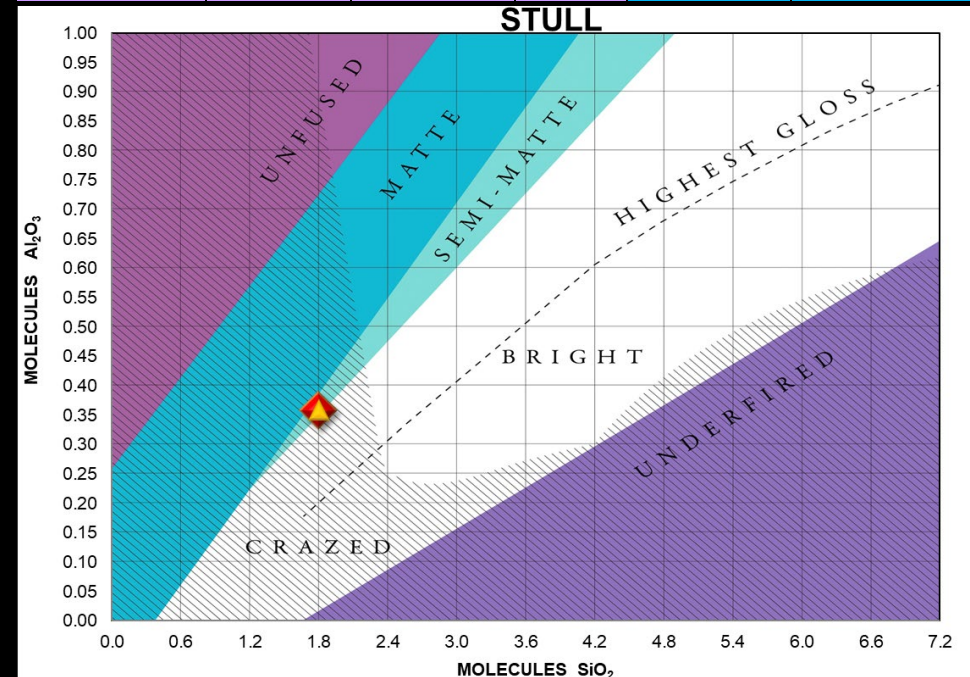
3%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.33		Alkaline Earths 0.67	
SiO ₂ 1.90	Collective "Al ₂ O ₃ " 0.38	Na ₂ O 0.19	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.38	Li ₂ O	CuO	SrO 0.66	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.05	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



6%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 : 1		Alkali Metals 0.36		Alkaline Earths 0.64	
SiO ₂ 1.80	Collective "Al ₂ O ₃ " 0.36	Na ₂ O 0.18	K ₂ O 0.05	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.36	Li ₂ O	CuO	SrO 0.62	BaO
TiO ₂ 0.00	NiO	Bi ₂ O ₃	SnO ₂ 0.10	ZnO	FeO 0.01
Cr ₂ O ₃	ZrO ₂	P ₂ O ₅		MnO ₂	CoO



Zirconium Silicate

Oxidation

Reduction

5%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

10%



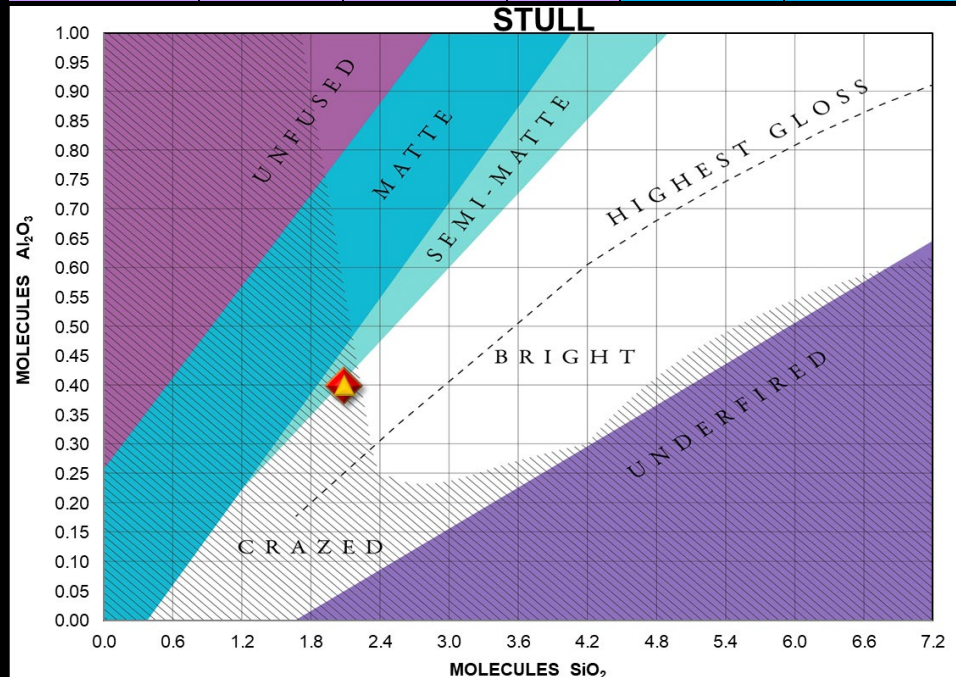
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Zirconium Silicate

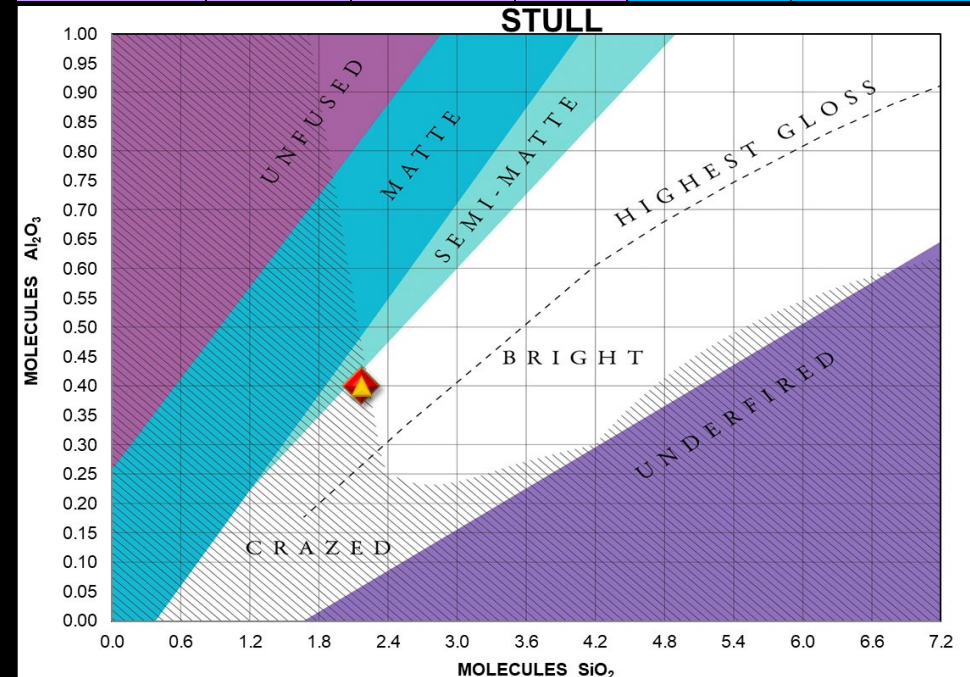
5%

SiO ₂ :Al ₂ O ₃ Ratio 5.20 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.09	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



10%

SiO ₂ :Al ₂ O ₃ Ratio 5.39 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.17	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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

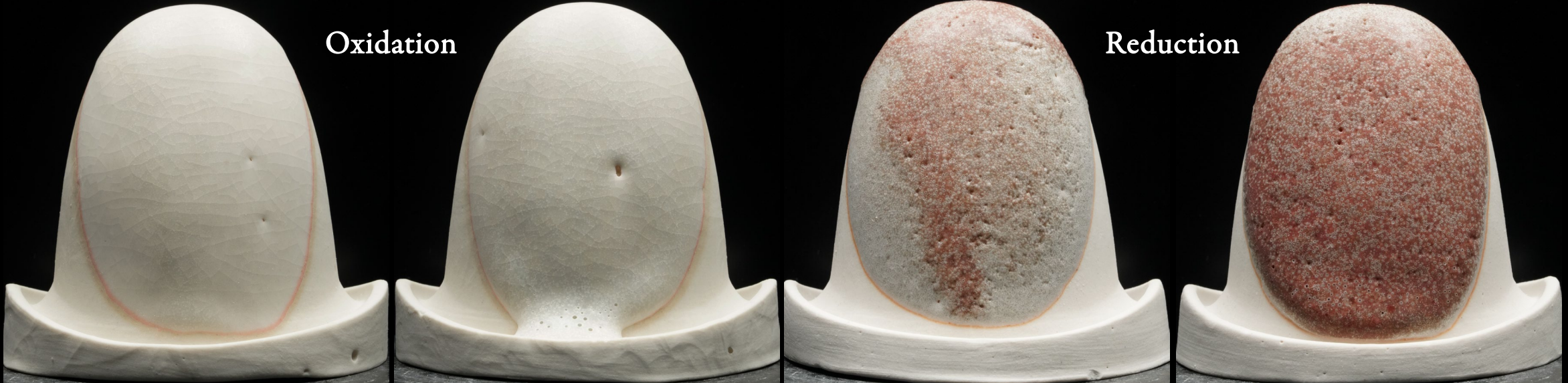


Stain Dark Red 6021

Oxidation

Reduction

5%



1-3 Second Dip

2-3 Second Dips

1-3 Second Dip

2-3 Second Dips

10%



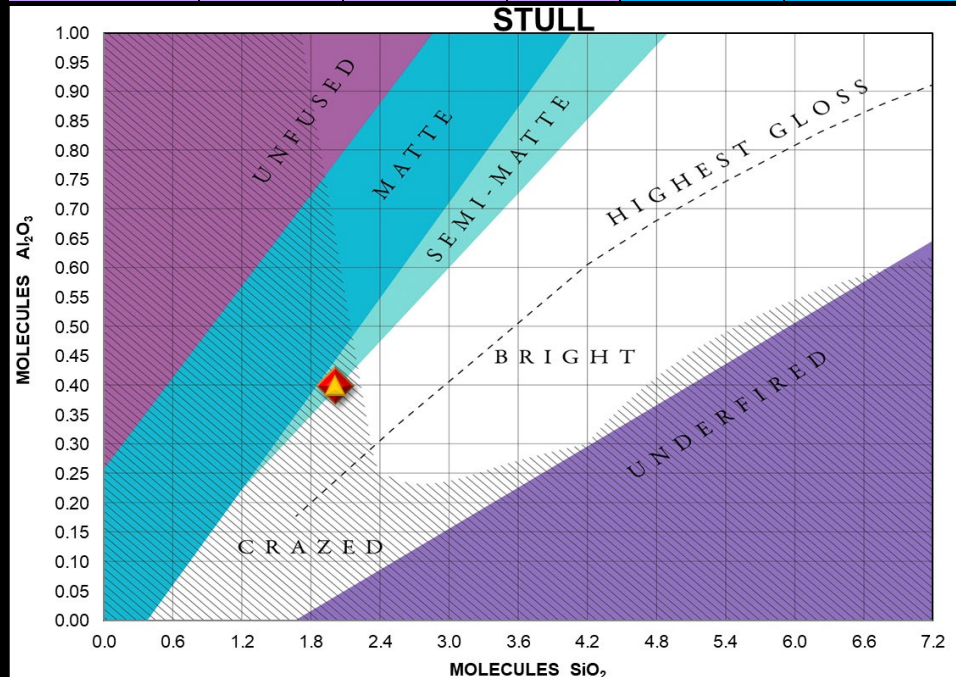
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Stain Dark Red 6021

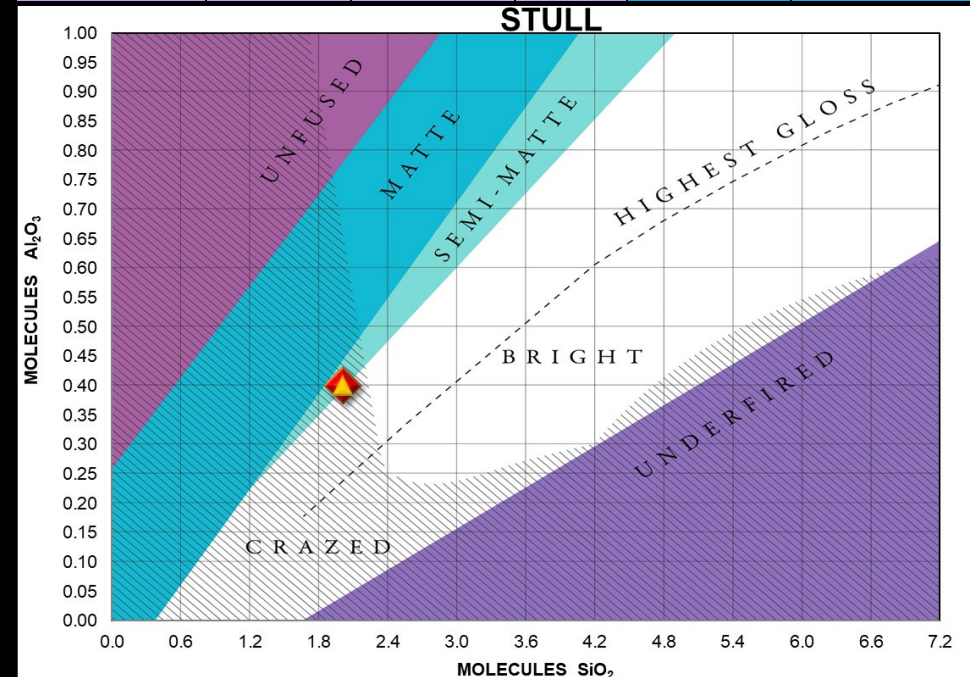
5%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



10%

SiO ₂ :Al ₂ O ₃ Ratio 5.00 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.01	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



Silicon Carbide-30 Mesh

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



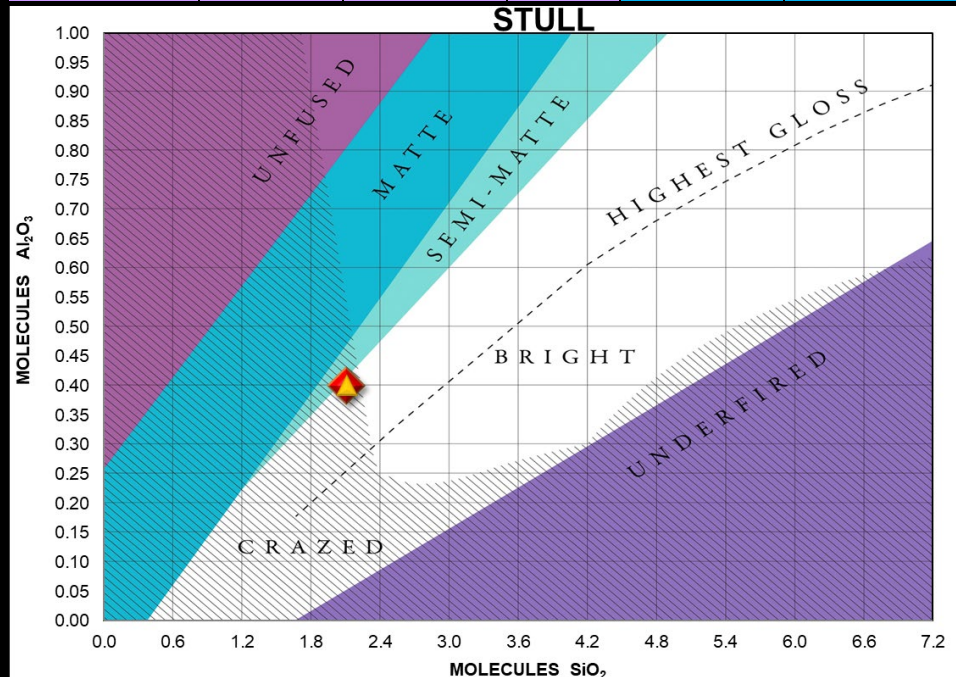
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Silicon Carbide-30 Mesh

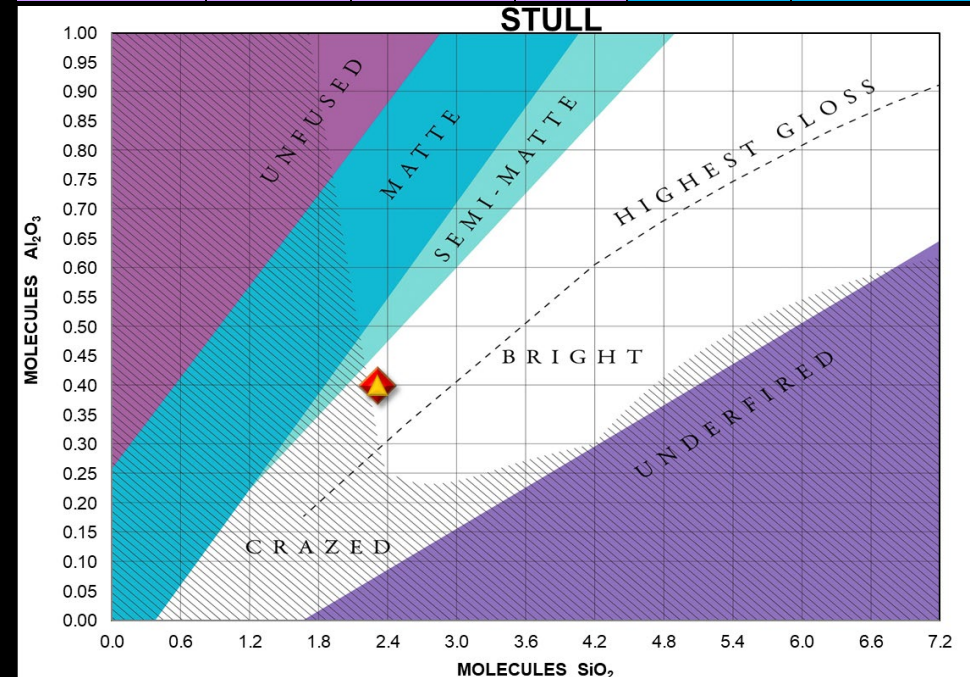
5%

SiO ₂ :Al ₂ O ₃ Ratio 5.25 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.11	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



10%

SiO ₂ :Al ₂ O ₃ Ratio 5.76 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.31	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



Silicon Carbide-800 Mesh

Oxidation

Reduction

3%



1-3 Second Dip



2-3 Second Dips



1-3 Second Dip



2-3 Second Dips

9%



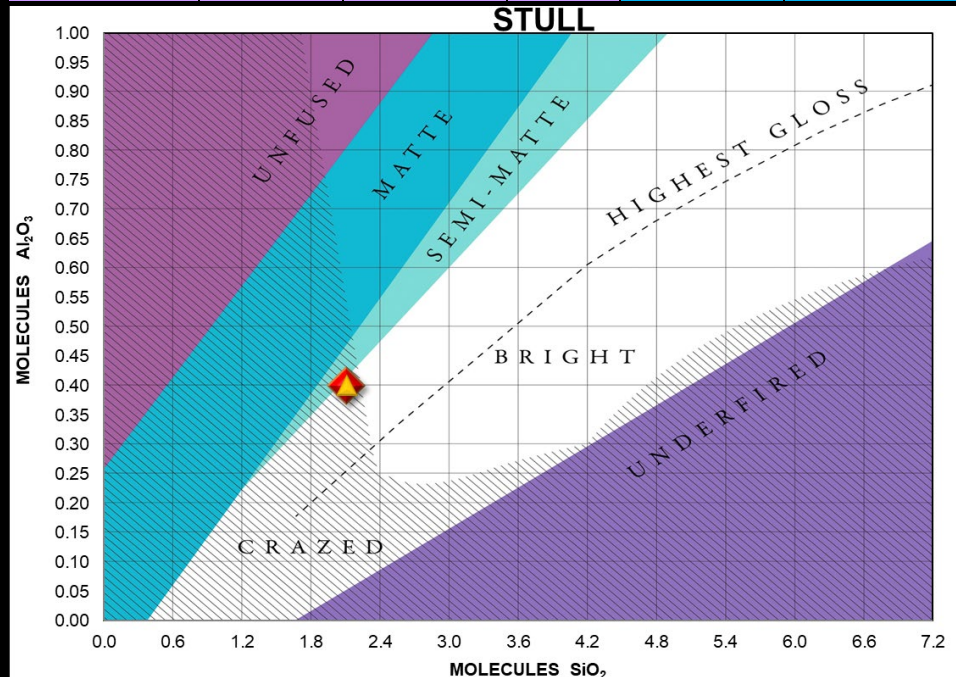
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Silicon Carbide-800 Mesh

5%

SiO ₂ :Al ₂ O ₃ Ratio 5.25 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.11	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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



10%

SiO ₂ :Al ₂ O ₃ Ratio 5.76 :1		Alkali Metals 0.29		Alkaline Earths 0.71	
SiO ₂ 2.31	Collective "Al ₂ O ₃ " 0.40	Na ₂ O 0.21	K ₂ O 0.06	MgO 0.00	CaO 0.01
B ₂ O ₃	Al ₂ O ₃ 0.40	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

