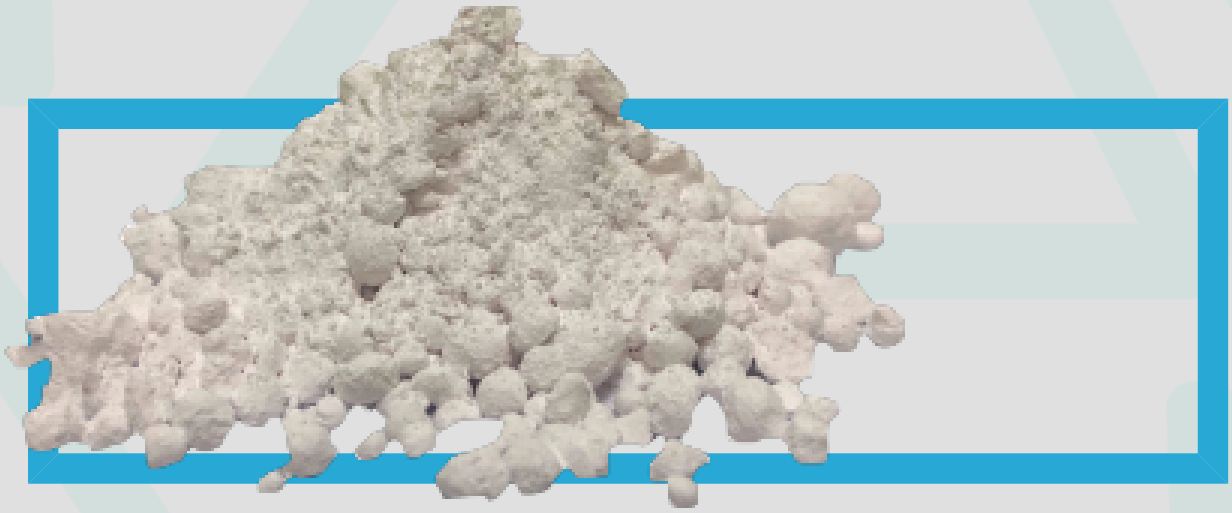
Al98BA

ALUMINAS

Al98BA is sintered beta phase Alumina material with typical Al_2O_3 content of 98% min.



Al98BA

ALUMINAS

Remarks

Al98BA is sintered beta phase Alumina material with typical Al_2O_3 content of 98% min.

Sizing

0-30 mm.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	98.50	**97.5**	**99.00**
TiO_2	0.60	**0.5**	**0.70**
SiO_2	0.30	**0.2**	**0.40**
CaO	0.15	**0.1**	**0.25**
Na_2O	0.10	**0.05**	**0.20**
Fe_2O_3	0.02	**0.01**	**0.10**

Al98

ALUMINAS

Al98 is a fired smelter grade Alumina material with Al_2O_3 98% minimum and Na_2O typically ranging between 1 - 1.5% max. Material comes in the form of fine beige to white colored powder and particle sizing 100% pass 200 mesh.

Al98
ALUMINAS

Remarks

Al98 is a fired smelter grade Alumina material with Al_2O_3 98% minimum and Na_2O typically ranging between 1 - 1.5% max. Material comes in the form of fine beige to white colored powder and particle sizing 100% pass 200 mesh.

Sizing

pass 200 mesh.

FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		2.2 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	98.00	97	98.50
LOI $_{1025}$°C	5.00	3	7.00
Na_2O	1.30	0.6	1.50
Moisture	1.00	0.5	2.00
SO_3	0.15	0.05	0.25
K_2O	0.10	0.05	0.20
Fe_2O_3	0.05	0.01	0.10
SiO_2	0.05	0.01	0.10
ZrO_2	0.03	0.01	0.05
CaO	0.03	0.01	0.05
NiO	0.01	0.001	0.02

Al97

ALUMINAS

Al97 is smelter grade Alumina pre-mixed with Cryolite through firing process and with typical Al_2O_3 content of 97%, F content 1.3% and Na_2O_3 0.9%. It comes in the fine powder form in particle size of 100% pass 200 mesh.

Al97
ALUMINAS

Remarks

Al97 is smelter grade Alumina pre-mixed with Cryolite through firing process and with typical Al_2O_3 content of 97%, F content 1.3% and Na_2O_3 0.9%. It comes in the fine powder form in particle size of 100% pass 200 mesh.

Sizing

pass 200 mesh.

FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		2.2 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	95.00	**92**	**97.00**
LOI $_{1025}$°C	6.00	**5**	**7.00**
F	1.30	**1**	**1.70**
Na_2O	0.75	**0.5**	**1.50**
Moisture	0.50	**0.1**	**1.00**
SiO_2	0.25	**0.1**	**0.45**
Fe_2O_3	0.15	**0.1**	**0.20**
CaO	0.10	**0.05**	**0.15**
TiO_2	0.07	**0.05**	**0.15**

Al94

ALUMINAS

Al94 is Alumina based fused material with typical Al_2O_3 content ranging around 94%. Material excels with high bulk density and higher melting point to other comparable raws.

Al94
ALUMINAS

Remarks

Al94 is Alumina based fused material with typical Al_2O_3 content ranging around 94%. Material excels with high bulk density and higher melting point to other comparable raws.

Sizing

Lumpy material 0 - 30 cm

- (PROCESS)	COLOURATION	BULK DENSITY
-		~3.3 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	94.00	**92**	**96.00**
Fe_2O_3	1.00	**0.5**	**1.50**
SiO_2	1.00	**0.5**	**1.50**
ZrO_2	1.00	**0.5**	**1.50**
TiO_2	0.65	**0.50**	**0.90**
Na_2O	0.10	**0.05**	**0.20**
K_2O	0.10	**0.05**	**0.20**

AI94G

ALUMINAS

AI94G is fused Alumina material with typical Al_2O_3 content of 94%.

Al94G
ALUMINAS

Remarks

Al94G is fused Alumina material with typical Al_2O_3 content of 94%.

Sizing

0-1; 1-3; 3-5 mm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~3.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	94.00	**92**	**96.00**
SiO_2	1.00	**0.5**	**1.50**
Fe_2O_3	1.00	**0.5**	**1.50**
ZrO_2	1.00	**0.5**	**1.50**
TiO_2	0.65	**0.5**	**0.80**
Na_2O	0.10	**0.05**	**0.20**
K_2O	0.10	**0.05**	**0.20**
Free Fe	0.10	**0.05**	**0.15**

CAI98F

ALUMINAS

CAI98F is fine Calcined Alumina base material with moisture content of 12% and balance of Calcined Alumina with typical content of 98%.

CAI98F

ALUMINAS

Remarks

CAI98F is fine Calcined Alumina base material with moisture content of 12% and balance of Calcined Alumina with typical content of 98%.

CALCINED (PROCESS)	COLOURATION	BULK DENSITY
1100 C		2.2 0.9g/cm^3

Chemical Composition & Physical Analysis

VS77

ALUMINAS

0

VS77
ALUMINAS

Remarks

0

- (PROCESS)	COLOURATION	BULK DENSITY
-	●	0 0.9g/cm³

Chemical Composition & Physical Analysis

WFA97

ALUMINAS

WFA97 is white fused Alumina based material with typical Alumina content of 97%.

WFA97
ALUMINAS

Remarks

WFA97 is white fused Alumina based material with typical Alumina content of 97%.

Sizing

fine powder -200 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2.5 0.9g/cm^3

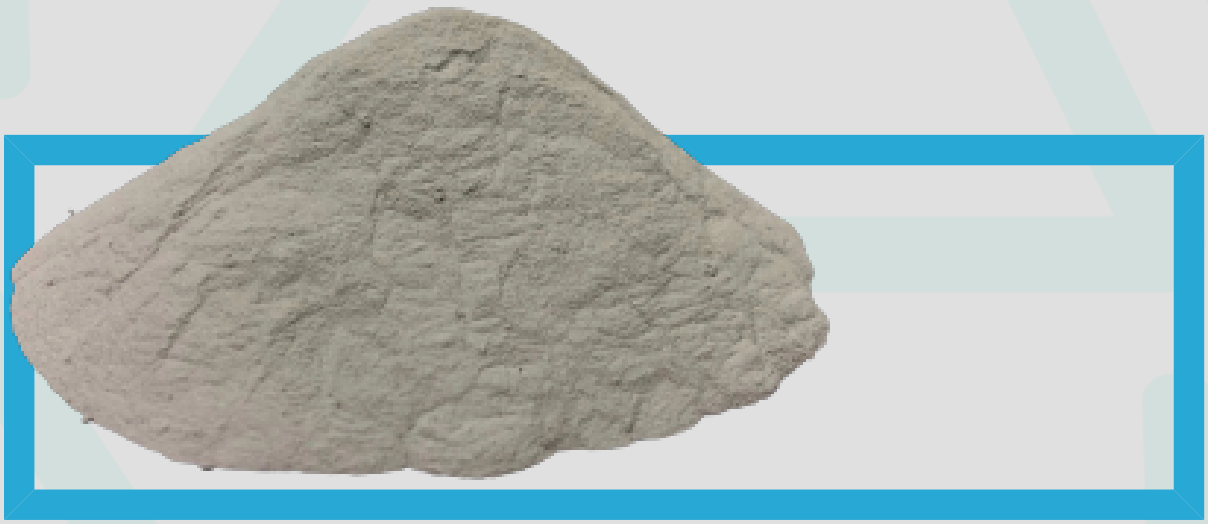
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	97.00	**96**	**98.00**
Fe_2O_3	0.34	**0.3**	**0.40**
WO_3	0.34	**0.3**	**0.40**
Na_2O	0.24	**0.2**	**0.30**
SiO_2	0.15	**0.1**	**0.20**

WFAF98

ALUMINAS

WFAF98 is fine white fused Alumina base material with typical Alumina content of 98% and guaranteed content of 97% minimum.



WFAF98

ALUMINAS

Remarks

WFAF98 is fine white fused Alumina base material with typical Alumina content of 98% and guaranteed content of 97% minimum.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	98.00	**97**	**99.00**
WO_3	0.80	**0.3**	**1.00**
SiO_2	0.50	**0.3**	**0.80**
Fe_2O_3	0.35	**0.2**	**0.60**
Na_2O	0.25	**0.10**	**0.40**
Co_2O_3	0.20	**0.1**	**0.30**
CaO	0.20	**0.1**	**0.40**

BFAF96

ALUMINAS

BFAF96 is a fine brown fused Alumina based material with typical Alumina content of 97% and guaranteed minimum content of 96%.

BFAF96

ALUMINAS

Remarks

BFAF96 is a fine brown fused Alumina based material with typical Alumina content of 97% and guaranteed minimum content of 96%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	98.00	**96**	**99.00**
SiO_2	0.45	**0.3**	**0.60**
Na_2O	0.30	**0.2**	**0.50**
Fe_2O_3	0.20	**0.1**	**0.40**
CaO	0.10	**0.05**	**0.30**

AlphaBeta94

ALUMINAS

AlphaBeta94 is Alpha-Beta crystalline phase material with typical Al_2O_3 of 93% and Na_2O of 4%.

AlphaBeta94
ALUMINAS

Remarks

AlphaBeta94 is Alpha-Beta crystalline phase material with typical Al_2O_3 of 93% and Na_2O of 4%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.2 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	92.00	90	94.00
SiO_2	4.50	3	5.50
Na_2O	3.80	3	4.50
CaO	0.50	0.3	0.80
Fe_2O_3	0.05	0.02	0.10

AlphaBeta94G

ALUMINAS

AlphaBeta94G is Alpha Beta phase Alumina base material with typical Al_2O_3 content of 94% and Na_2O content of around 4%.

AlphaBeta94G

ALUMINAS

Remarks

AlphaBeta94G is Alpha Beta phase Alumina base material with typical Al_2O_3 content of 94% and Na_2O content of around 4%.

Sizing

0-1 mm; 1-3 mm; 3-5 mm

- (PROCESS)	COLOURATION	BULK DENSITY
-		2.2 0.9g/cm³

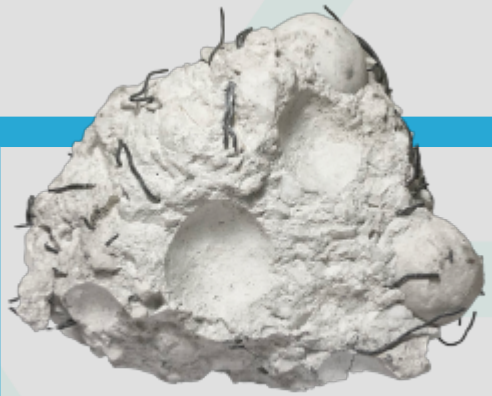
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	94.00	90	96.00
Na_2O	4.00	3	5.00
SiO_2	1.00	0.5	3.00
CaO	0.50	0.1	0.70
MgO	0.20	0.1	0.35
K_2O	0.08	0.03	0.20
Fe_2O_3	0.05	0.02	0.15
TiO_2	0.03	0.01	0.10

CAST A

ALUMINAS

CAST A is lumpy white fused Alumina based material with typical Alumina content of 87%.



CAST A
ALUMINAS

Remarks

CAST A is lumpy white fused Alumina based material with typical Alumina content of 87%.

Sizing

lumps 0-20 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2 0.9g/cm^3

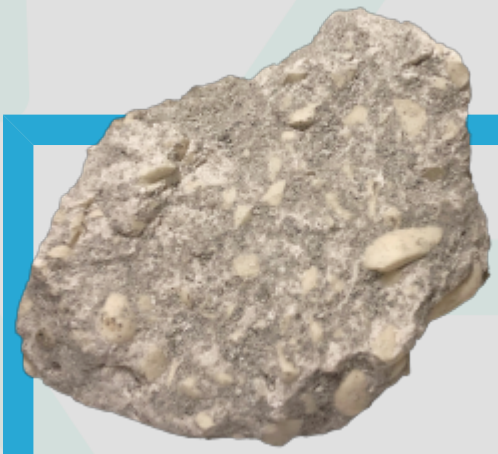
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	88.02	**87**	**89.00**
MgO	5.34	**5.2**	**5.41**
CaO	3.08	**3**	**3.20**
Na_2O	0.39	**0.3**	**0.40**
SiO_2	0.21	**0.15**	**0.30**

CAST B

ALUMINAS

CAST B is a lumpy mix of white fused Alumina materials with typical Alumina content of 90%



CAST B
ALUMINAS

Remarks

CAST B is a lumpy mix of white fused Alumina materials with typical Alumina content of 90%

Sizing

lumps 0-20 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	90.00	**89**	**91.00**
CaO	2.40	**1.2**	**3.60**
MgO	2.30	**1.15**	**3.45**
SiO_2	0.40	**0.2**	**0.60**
Na_2O	0.35	**0.17**	**0.50**
Fe_2O_3	0.20	**0.1**	**0.30**

SAG77G

ALUMINAS

SAG77G is sintered mullite based material with typical Al_2O_3 content of 77%.

SAG77G
ALUMINAS

Remarks

SAG77G is sintered mullite based material with typical Al_2O_3 content of 77%.

Sizing

Crushed to typical size 0-1mm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		2.2 0.9g/cm^3

Chemical Composition & Physical Analysis

SAI94

ALUMINAS

SAI94 is a lumpy sintered Alumina material with typical Al_2O_3 content of 96% and with guaranteed content of 94% minimum.

SAI94
ALUMINAS

Remarks

SAI94 is a lumpy sintered Alumina material with typical Al_2O_3 content of 96% and with guaranteed content of 94% minimum.

Sizing

Round strips in sizing of 0 to 30 cm maximum.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		2.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	96.00	94	97.00
SiO_2	2.00	1.5	2.50
ZrO_2	0.70	0.5	1.00
BaO	0.70	0.5	1.00
MgO	0.30	0.1	0.50
CaO	0.25	0.1	0.35
Fe_2O_3	0.08	0.05	0.20
K_2O	0.05	0.01	0.15
Ga_2O_3	0.01	0.005	0.05

SAI99

ALUMINAS

SAI99 is a lumpy sintered Alumina material with typical Alumina content of 99% and with guaranteed content of 98%.

SAI99
ALUMINAS

Remarks

SAI99 is a lumpy sintered Alumina material with typical Alumina content of 99% and with guaranteed content of 98%.

Sizing

Randomly sized lumps 0 - 30 cm.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		2.6 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	99.30	**98.5**	**99.50**
MgO	0.30	**0.2**	**0.40**
Fe_2O_3	0.10	**0.05**	**0.20**

SML70

ALUMINAS

SML70 is sintered mullite material with typical Al_2O_3 content around 70%.

SML70
ALUMINAS

Remarks

SML70 is sintered mullite material with typical Al_2O_3 content around 70%.

Sizing

Lumps: 0-25 cm; Crushed to sizes: 0-1; 1-3; 3-5 mm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~ 2.35 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	70.00	69	71.50
SiO_2	27.00	24.5	28.50
Fe_2O_3	0.50	0.3	0.70
Na_2O	0.30	0.1	0.60
K_2O	0.30	0.1	0.60
TiO_2	0.25	0.1	0.45
CaO	0.15	0.1	0.30
MgO	0.07	0.05	0.10
ZrO_2	0.02	0.01	0.05

AL90SL

ALUMINAS

AL90SL is a mixture of Calcined and Fused Alumina powder of typical Al2O3 minimum content of 90% min.

AL90SL

ALUMINAS

Remarks

AL90SL is a mixture of Calcined and Fused Alumina powder of typical Al2O3 minimum content of 90% min.

Sizing

75% minimum of particles passing 200 mesh. Max 25% oversize.

CALCINED (PROCESS)	COLOURATION	BULK DENSITY
1100 C		2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
AlO_3	92.00	90	93.00
SiO_2	3.00	1.00	4.00
Moisture	2.50	1.00	3.00
ZrO_2	2.00	1.00	3.00
Fe_2O_3	0.30	0.10	0.50

SML70G

ALUMINAS

SML70G is sintered mullite material with typical Al_2O_3 content around 70%.

SML70G

ALUMINAS

Remarks

SML70G is sintered mullite material with typical Al_2O_3 content around 70%.

Sizing

0-1 mm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	70.00	69	71.50
SiO_2	27.00	24.5	28.50
Fe_2O_3	0.50	0.3	0.70
Na_2O	0.30	0.1	0.60
K_2O	0.30	0.1	0.60
TiO_2	0.25	0.1	0.45
CaO	0.15	0.1	0.30
MgO	0.07	0.05	0.10
ZrO_2	0.02	0.01	0.05

ZML18

ALUMINAS

ZML18 is a porous sintered Zircon mullite material with typical Zircon content of 18%.

ZML18
ALUMINAS

Remarks

ZML18 is a porous sintered Zircon mullite material with typical Zircon content of 18%.

Sizing

lumps 0-30 cm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~1.8 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	68.84	**66.6**	**69.50**
ZrO_2+HfO_2	17.82	**15.8**	**19.20**
SiO_2	12.40	**11.4**	**13.50**
Na_2O	0.28	**0.25**	**0.30**
Fe_2O_3	0.12	**0.1**	**0.15**
P_2O_5	0.12	**0.1**	**15.00**

ZML20

ALUMINAS

ZML20 is a fused Zircon mullite material with typical ZrO_2 content of around 20%.

ZML20
ALUMINAS

Remarks

ZML20 is a fused Zircon mullite material with typical ZrO_2 content of around 20%.

Sizing

Lumps: 0-30cm. Crushed and graded to typical demanded sizes: 0-1mm; 1-3mm; 3-5mm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	66.40	65	68.00
Al_2O_3	57.00	55	60.00
ZrO_2+HfO_2	20.50	19	22.00
SiO_2	14.00	13	15.00
K_2O	4.80	4	5.50
Na_2O	1.80	1.5	2.50
P_2O_5	0.67	0.6	0.73
TiO_2	0.40	0.3	0.50
Na_2O	0.30	0.25	0.35
LOSS	0.21	0	0.40
MgO	0.13	0.05	0.20
BaO	0.10	0.05	0.15
Fe_2O_3	0.10	0.05	0.15

ZML826

ALUMINAS

ZML826 is sintered Zircon mullite material with typical ZrO_2 content ranging from 8-26%

ZML826

ALUMINAS

Remarks

ZML826 is sintered Zircon mullite material with typical ZrO_2 content ranging from 8-26%

Sizing

grains 0-1 mm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	69.00	60	77.00
ZrO_2+HfO_2	17.00	8	26.00
SiO_2	5.00	2	8.00
Na_2O	0.30	0.2	0.50

FML73

ALUMINAS

FML73 is fused Alumina mullite material with Alumina content of 73% minimum.

FML73
ALUMINAS

Remarks

FML73 is fused Alumina mullite material with Alumina content of 73% minimum.

Sizing

lumps 0-30 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	72.00	70	75.00
SiO_2	26.00	25	27.00
Na_2O	0.50	0.2	1.00
Fe_2O_3	0.50	0.3	0.70
K_2O	0.30	0.2	0.80
TiO_2	0.25	0.1	0.40
Cr_2O_3	0.20	0.1	0.50
CaO	0.15	0.1	0.30
MgO	0.07	0.05	0.10

FML73G(3-5mm)

ALUMINAS

FML73G(3-5) is a Fused mullite phase material with typical Al_2O_3 content of around 73%.

FML73G(3-5mm)

ALUMINAS

Remarks

FML73G(3-5) is a Fused mullite phase material with typical Al_2O_3 content of around 73%.

Sizing

3-5 mm. Max oversize: 10%. Max undersize: 10%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		2.3 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	73.00	**71**	**75.00**
SiO_2	24.50	**23.0**	**26.00**
CaO	0.75	**0.5**	**1.00**
Na_2O	0.60	**0.3**	**0.90**
Fe_2O_3	0.50	**0.3**	**0.70**
TiO_2	0.45	**0.30**	**0.60**
K_2O	0.10	**0.05**	**0.20**
MgO	0.07	**0.02**	**0.15**

FML73G(0-3)

ALUMINAS

FML73G(0-3) is a fused mullite phase material with typical Al_2O_3 content of around 73%.

FML73G(0-3)

ALUMINAS

Remarks

FML73G(0-3) is a fused mullite phase material with typical Al_2O_3 content of around 73%.

Sizing

grains 0-3 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	73.00	**71**	**75.00**
SiO_2	24.50	**23**	**26.00**
CaO	0.75	**0.5**	**1.00**
Na_2O	0.60	**0.3**	**0.90**
Fe_2O_3	0.50	**0.3**	**0.70**
TiO_2	0.45	**0.3**	**0.60**
K_2O	0.10	**0.05**	**0.20**
MgO	0.07	**0.02**	**0.15**

AZS31F

ALUMINA ZIRCON SILICATE

AZS31F is Alumina Zircon Silicate based material in the form of fine powder with typical ZrO_2 content of 31% minimum.

AZS31F

ALUMINA ZIRCON SILICATE

Remarks

AZS31F is Alumina Zircon Silicate based material in the form of fine powder with typical ZrO_2 content of 31% minimum.

Sizing

-200 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	42.00	**38**	**44.00**
ZrO_2+HfO_2	31.50	**31**	**33.00**
SiO_2	21.00	**19**	**23.00**
Na_2O	2.80	**2.5**	**3.00**
Fe_2O_3	0.40	**0.3**	**0.50**
CaO	0.30	**0.2**	**0.50**
LOI	0.20	**0.1**	**0.30**

AZS32BL

ALUMINA ZIRCON SILICATE

AZS32BL is fused cast Alumina Zircon Silicate based block and paver type material with typical ZrO_2+HfO_2 content of 32% minimum, Al_2O_3 ~ 50% and SiO_2 ~ 15%.

AZS32BL

ALUMINA ZIRCON SILICATE

Remarks

AZS32BL is fused cast Alumina Zircon Silicate based block and paver type material with typical ZrO_2+HfO_2 content of 32% minimum, Al_2O_3 ~ 50% and SiO_2 ~ 15%.

Sizing

Typically in the shapes of rectangular type blocks and pavers. Sizes and shapes will vary. Minor break offs are possible and will be apparent.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~3.2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	50.00	**47**	**52.00**
ZrO_2+HfO_2	33.00	**32**	**34.00**
SiO_2	15.00	**13.5**	**16.50**
Na_2O	2.00	**1.5**	**2.50**
Fe_2O_3	0.25	**0.15**	**0.40**
K_2O	0.20	**0.1**	**0.40**
TiO_2	0.20	**0.1**	**0.40**

AZS32L

ALUMINA ZIRCON SILICATE

AZS32L is a lumpy Alumina Zircon Silicate base material with typical ZrO_2+HfO_2 cumulative content of 32% minimum and with Al_2O_3 in the range of 50% and SiO_2 with typical content of 15%.

AZS32L

ALUMINA ZIRCON SILICATE

Remarks

AZS32L is a lumpy Alumina Zircon Silicate base material with typical ZrO_2+HfO_2 cumulative content of 32% minimum and with Al_2O_3 in the range of 50% and SiO_2 with typical content of 15%.

Sizing

Comes in random sizes and shapes with longest dimension typically not longer than 300 mm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	50.00	**47**	**52.00**
ZrO_2+HfO_2	33.00	**32**	**34.00**
SiO_2	15.00	**13.5**	**16.50**
Na_2O	2.00	**1.5**	**2.50**
Fe_2O_3	0.25	**0.15**	**0.40**
K_2O	0.20	**0.1**	**0.40**
TiO_2	0.15	**0.1**	**0.25**

AZS32RE

ALUMINA ZIRCON SILICATE

AZS32RE is Alumina Zircon Silicate material with ZrO_2 content of 32% minimum and Al_2O_3 ranging from 45 to 47%. Material serves as a great substitute to virgin raw materials in lower end refractory applications, such as castables.

AZS32RE

ALUMINA ZIRCON SILICATE

Remarks

AZS32RE is Alumina Zircon Silicate material with ZrO_2 content of 32% minimum and Al_2O_3 ranging from 45 to 47%. Material serves as a great substitute to virgin raw materials in lower end refractory applications, such as castables.

Sizing

Typically: 0-1; 1-3; 3-5 mm; Any size based on clients demand.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	46.00	**45**	**47.50**
ZrO_2+HfO_2	33.00	**32**	**34.00**
SiO_2	14.50	**13.50**	**16.00**
Na_2O	1.70	**1.30**	**2.20**
Fe_2O_3	0.25	**0.10**	**0.40**
K_2O	0.20	**0.10**	**0.40**
TiO_2	0.20	**0.10**	**0.40**

AZS32CE

ALUMINA ZIRCON SILICATE

AZS32CE is Alumina Zircon Silicate material with typical ZrO_2 content of 32% minimum and Al_2O_3 content of around 52%.

AZS32CE

ALUMINA ZIRCON SILICATE

Remarks

AZS32CE is Alumina Zircon Silicate material with typical ZrO_2 content of 32% minimum and Al_2O_3 content of around 52%.

Sizing

0-1 mm; 0-3 mm; Pass 325 mesh (Passing rate 92%)

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~3.0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	52.00	50	54.00
ZrO_2+HfO_2	33.00	32	34.00
SiO_2	14.50	13.5	16.00
Na_2O	2.00	1.5	2.50
Fe_2O_3	0.25	0.1	0.40
TiO_2	0.20	0.1	0.40
K_2O	0.20	0.1	0.40
Free Iron	0.03	0.02	0.05

AZSF33

ALUMINA ZIRCON SILICATE

AZSF33 is carefully re-processed Alumina Zircon Silicate fine material with ZrO_2 content of minimum 33% and particle sizing pass 200 mesh.

AZSF33

ALUMINA ZIRCON SILICATE

Remarks

AZSF33 is carefully re-processed Alumina Zircon Silicate fine material with ZrO_2 content of minimum 33% and particle sizing pass 200 mesh.

Sizing

particle sizing pass 200 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	50.00	49	52.00
ZrO_2+HfO_2	33.00	32	34.00
SiO_2	16.00	15	17.00
Na_2O	1.60	1.3	2.00
TiO_2	0.20	0.1	0.30
Fe_2O_3	0.20	0.1	0.30
MgO	0.10	0.05	0.20
Free Iron	0.05	0.02	0.10

AZS35L

ALUMINA ZIRCON SILICATE

AZS35L is a lumpy Alumina Zircon Silicate material which comes with ZrO_2 content at 35% minimum and Na_2O of 1.6% max

AZS35L

ALUMINA ZIRCON SILICATE

Remarks

AZS35L is a lumpy Alumina Zircon Silicate material which comes with ZrO_2 content at 35% minimum and Na_2O of 1.6% max

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.5 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	47.50	**46**	**49.00**
ZrO_2+HfO_2	36.00	**35**	**37.00**
SiO_2	13.50	**13**	**14.50**
Na_2O	1.30	**1**	**1.50**
Fe_2O_3	0.20	**0.1**	**0.30**
TiO_2	0.15	**0.1**	**0.25**
MgO	0.10	**0.05**	**0.15**

AZS35G

ALUMINA ZIRCON SILICATE

AZS35G is Alumina Zircon silicate material with ZrO_2 content of 35% minimum, which serves as a great substitute for applications in production of sintered AZS and where fused Zircon mullite material is required.

AZS35G

ALUMINA ZIRCON SILICATE

Remarks

AZS35G is Alumina Zircon silicate material with ZrO_2 content of 35% minimum, which serves as a great substitute for applications in production of sintered AZS and where fused Zircon mullite material is required.

Sizing

Typically: 0.2-1; 0-1; 1-3; 3-5 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	47.50	46	49.00
ZrO_2+HfO_2	36.00	35	37.00
SiO_2	13.50	13	14.50
Na_2O	1.30	1	1.50
Fe_2O_3	0.20	0.1	0.30
TiO_2	0.15	0.1	0.25
MgO	0.10	0.05	0.15
Free Iron	0.03	0.01	0.05

AZS40L

ALUMINA ZIRCON SILICATE

AZS40L is fused Alumina Zircon Silicate material with typical cumulative ZrO_2+HfO_2 content of 40%.

AZS40L

ALUMINA ZIRCON SILICATE

Remarks

AZS40L is fused Alumina Zircon Silicate material with typical cumulative ZrO_2+HfO_2 content of 40%.

Sizing

Lumps sized 0 - 30 cm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	45.00	**43**	**47.00**
ZrO_2 + HfO_2	40.00	**39**	**41.00**
SiO_2	13.00	**12**	**14.00**
Na_2O	1.00	**0.5**	**1.50**
K_2O	0.30	**0.1**	**0.50**
Fe_2O_3	0.20	**0.1**	**0.30**

AZS40G

ALUMINA ZIRCON SILICATE

AZS40G is Alumina Zircon Silicate material with ZrO_2 content of 39% minimum, which serves as a great substitute in applications for production of sintered AZS refractories and where the Fused Zircon mullite is required.

AZS40G

ALUMINA ZIRCON SILICATE

Remarks

AZS40G is Alumina Zircon Silicate material with ZrO_2 content of 39% minimum, which serves as a great substitute in applications for production of sintered AZS refractories and where the Fused Zircon mullite is required.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.4 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	45.00	**43**	**47.00**
$ZrO_2 + HfO_2$	40.00	**39**	**41.00**
SiO_2	13.00	**12**	**4.00**
Na_2O	1.00	**0.5**	**1.50**
K_2O	0.30	**0.1**	**0.50**
Fe_2O_3	0.20	**0.1**	**0.30**
TiO_2	0.15	**0.1**	**0.25**
Free Iron	0.03	**0.01**	**0.05**

ZML33F

ALUMINA ZIRCON SILICATE

ZML33F is fused Zircon mullite material with typical ZrO_2 content of 33%.

ZML33F

ALUMINA ZIRCON SILICATE

Remarks

ZML33F is fused Zircon mullite material with typical ZrO_2 content of 33%.

Sizing

Pass 200 mesh. 92% passing standard.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~ 3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	47.00	45	50.00
ZrO_2+HfO_2	33.00	32	35.00
SiO_2	18.00	16	20.00
Na_2O	0.50	0.3	0.70
Y_2O_3	0.30	0.2	0.40
Fe_2O_3	0.15	0.10	0.20
TiO_2	0.10	0.05	0.15
CaO	0.10	0.05	0.15
K_2O	0.05	0.01	0.10

ZML33DT

ALUMINA ZIRCON SILICATE

ZML33DT is fused Zircon mullite material which comes in the form of fine powder -100 mesh with ZrO_2+HfO_2 content of 31% minimum.

ZML33DT

ALUMINA ZIRCON SILICATE

Remarks

ZML33DT is fused Zircon mullite material which comes in the form of fine powder -100 mesh with ZrO_2+HfO_2 content of 31% minimum.

Sizing

-100 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2.9 0.9g/cm^3

Chemical Composition & Physical Analysis

DZ65

ZIRCON

DZ65 is fused and isostatically pressed Zircon based material with typical Zircon content of 65% and above. The material excels with high density and serves as a great substitute in applications for Zircon based shaped cast refractories.

DZ65
ZIRCON

Remarks

DZ65 is fused and isostatically pressed Zircon based material with typical Zircon content of 65% and above. The material excels with high density and serves as a great substitute in applications for Zircon based shaped cast refractories.

Sizing

Lumpy material in the size from 0 - 30 cm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4.2 0.9g/cm^3

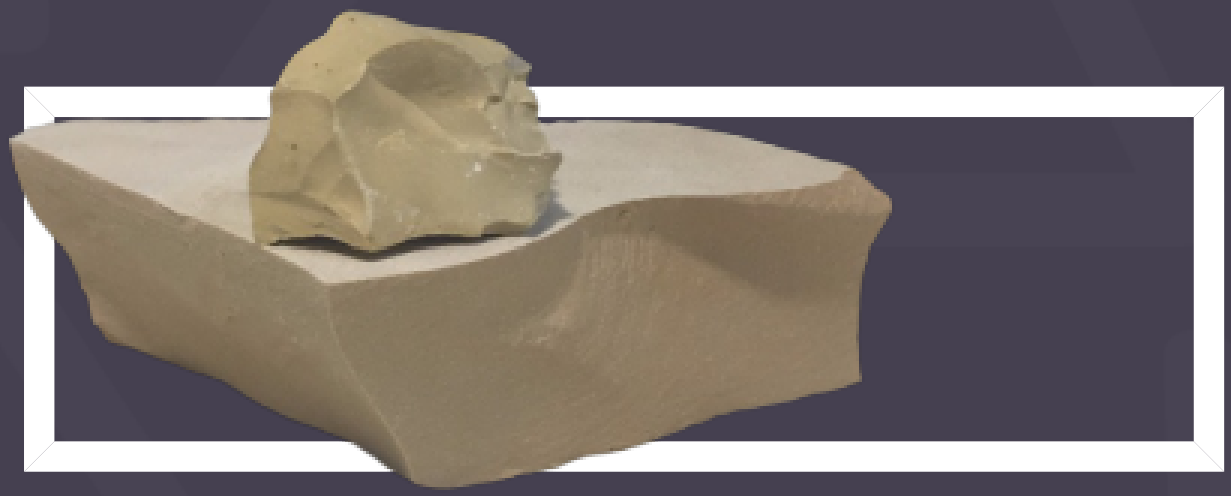
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2	65.50	**64.5**	**66.00**
SiO_2	32.00	**31.5**	**33.00**
TiO_2	0.90	**0.5**	**1.00**
CaO	0.65	**0.5**	**0.80**
Al_2O_3	0.55	**0.3**	**0.70**
Fe_2O_3	0.15	**0.1**	**0.30**
MgO	0.15	**0.1**	**0.20**

DZ69

ZIRCON

DZ69 is Fused isostatically pressed material with dense structure.



DZ69
ZIRCON

Remarks

DZ69 is Fused isostatically pressed material with dense structure.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4.2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	68.00	**66**	**69.00**
SiO_2	28.00	**27**	**29.00**
TiO_2	0.70	**0.5**	**1.00**
CaO	0.70	**0.5**	**1.00**
Al_2O_3	0.35	**0.1**	**0.50**
Fe_2O_3	0.23	**0.1**	**0.30**
NaO	0.15	**0.1**	**0.25**
MgO	0.10	**0.05**	**0.20**

TZB58

ZIRCON

TZB58 is sintered Zircon brick material with typical Zircon content from 56-60%. The material comes in green, yellow, orange and red randomly sized cullet form.

TZB58

ZIRCON

Remarks

TZB58 is sintered Zircon brick material with typical Zircon content from 56-60%. The material comes in green, yellow, orange and red randomly sized cullet form.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~3.4 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	59.00	**58**	**62.00**
SiO_2	36.50	**35**	**37.00**
Al_2O_3	0.70	**0.5**	**0.90**
CaO	0.70	**0.2**	**1.00**
TiO_2	0.50	**0.3**	**1.00**
Na_2O	0.40	**0.2**	**0.60**
Fe_2O_3	0.22	**0.1**	**0.30**
CaO	0.20	**0.1**	**0.50**
K_2O	0.15	**0.1**	**0.20**

TZB65

ZIRCON

TZB65 is Zircon Silicate brick material which has been carefully sorted in order to achieve only yellow to red range colors of material, meanwhile guaranteeing minimum ZrO_2 content of 64%.

TZB65

ZIRCON

Remarks

TZB65 is Zircon Silicate brick material which has been carefully sorted in order to achieve only yellow to red range colors of material, meanwhile guaranteeing minimum ZrO_2 content of 64%.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		3.4 - 3.6 0.9g/cm^3

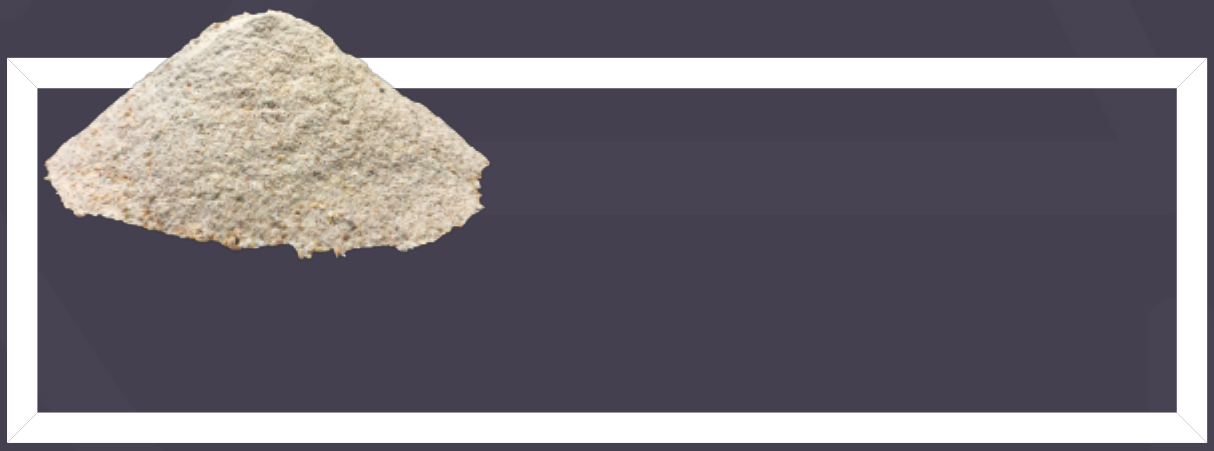
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2	65.50	**65**	**66.00**
SiO_2	32.00	**31.5**	**32.50**
Tio_2	0.60	**0.2**	**1.00**
Al_2O_3	0.60	**0.3**	**1.00**
Fe_2O_3	0.20	**0.1**	**0.30**
Na_2O	0.10	**0.05**	**0.20**

TZB65G

ZIRCON

TZB65G is a Zircon silicate based material with typical ZrO_2 +HfO_2 cumulative content of 65% and guaranteed content of 64% minimum.



TZB65G

ZIRCON

Remarks

TZB65G is a Zircon silicate based material with typical ZrO_2+HfO_2 cumulative content of 65% and guaranteed content of 64% minimum.

Sizing

0-1mm; 1-3mm; 3-5mm

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~3.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	65.00	**64**	**66.00**
SiO_2	32.00	**31**	**33.00**
Al_2O_3	0.70	**0.5**	**1.50**
TiO_2	0.50	**0.3**	**0.90**
P_2O_5	0.20	**0.1**	**0.40**
Fe_2O_3	0.15	**0.1**	**0.40**
CaO	0.15	**0.10**	**0.50**
Na_2O	0.10	**0.01**	**0.20**
K_2O	0.10	**0.05**	**0.20**

Zr58

ZIRCON SILICATE

Zr58 is a sintered Zircon Silicate material with typical ZrO_2+HfO_2 content of around 58%.

Zr58

ZIRCON SILICATE

Remarks

Zr58 is a sintered Zircon Silicate material with typical ZrO_2+HfO_2 content of around 58%.

Sizing

Pass 100 mesh; Pass 200 mesh; Pass 325 mesh

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~3.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	58.50	**57.5**	**61.00**
SiO_2	36.00	**34.5**	**36.50**
Al_2O_3	1.50	**1**	**2.50**
CaO	0.70	**0.2**	**1.00**
TiO_2	0.50	**0.3**	**1.00**
Na_2O	0.40	**0.2**	**0.60**
Fe_2O_3	0.25	**0.1**	**0.30**
K_2O	0.15	**0.1**	**0.20**

Zr65

ZIRCON SILICATE

Zr65 is a sintered Zircon Silicate material with typical ZrO_2+HfO_2 content of around 65%.

Zr65

ZIRCON SILICATE

Remarks

Zr65 is a sintered Zircon Silicate material with typical ZrO_2+HfO_2 content of around 65%.

Sizing

Pass 100 mesh; Pass 200 mesh; Pass 325 mesh

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~3.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2	65.00	**64.5**	**65.50**
SiO_2	31.50	**31**	**32.00**
Al_2O_3	1.20	**0.8**	**2.00**
TiO_2	0.60	**0.2**	**1.00**
Fe_2O_3	0.20	**0.1**	**0.30**
Na_2O	0.10	**0.05**	**0.20**

Zr65F

ZIRCON SILICATE

Zr65F is Zircon Silicate based material with typical ZrO_2 content of 65% and guaranteed content of 64% minimum.

Zr65F

ZIRCON SILICATE

Remarks

Zr65F is Zircon Silicate based material with typical ZrO_2 content of 65% and guaranteed content of 64% minimum.

Sizing

Pass 325 mesh. 92% passing standard.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.9 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	65.00	**64.00**	**65.50**
SiO_2	32.50	**31.50**	**33.50**
Moisture	0.50	**0.30**	**1.00**
TiO_2	0.30	**0.10**	**0.50**
AL_2O_3	0.20	**0.10**	**0.50**
P_2O_5	0.20	**0.1**	**0.40**
Fe_2O_3	0.10	**0.05**	**0.20**
CaO	0.10	**0.05**	**0.30**
MgO	0.05	**0.01**	**0.20**

DZr65

ZIRCON SILICATE

DZr65 is dense fused Zircon Silicate material with typical ZrO_2 +HfO_2 content of around 65%.

DZr65

ZIRCON SILICATE

Remarks

DZr65 is dense fused Zircon Silicate material with typical ZrO_2+HfO_2 content of around 65%.

Sizing

Pass 100 mesh; Pass 200 mesh; Pass 325 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		4.1 0.9g/cm^3

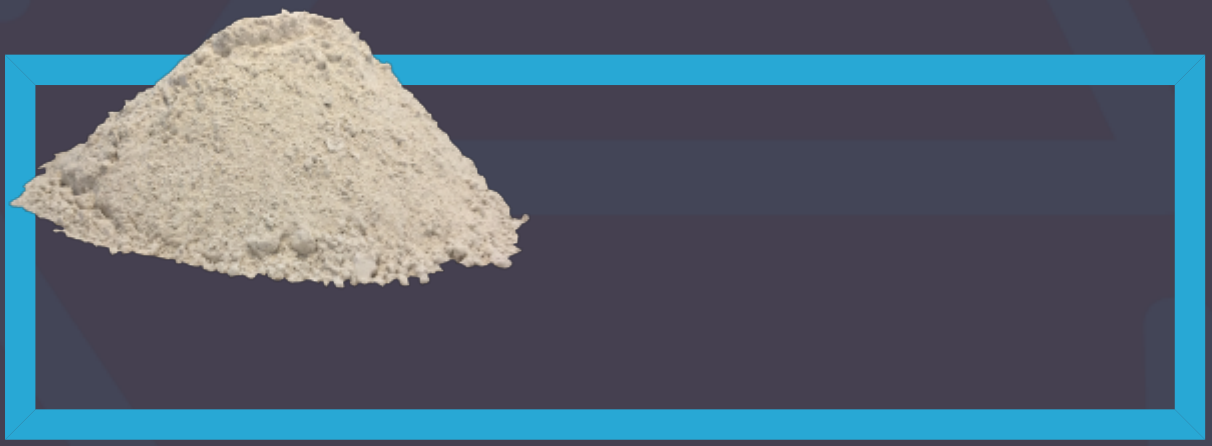
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2	65.00	**64**	**65.50**
SiO_2	31.50	**31**	**32.50**
TiO_2	0.90	**0.5**	**1.00**
CaO	0.65	**0.5**	**0.80**
Al_2O_3	0.55	**0.3**	**0.70**
Fe_2O_3	0.15	**0.1**	**0.30**
MgO	0.15	**0.1**	**0.20**

DZr69

ZIRCON SILICATE

DZr69 is fused dense Zircon Silicate material with typical ZrO_2 +HfO_2 content ranging from 65 - 68%.



DZr69

ZIRCON SILICATE

Remarks

DZr69 is fused dense Zircon Silicate material with typical ZrO_2+HfO_2 content ranging from 65 - 68%.

Sizing

Pass 100 mesh; Pass 200 mesh; Pass 325 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4.2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	67.50	**65.5**	**68.50**
SiO_2	27.50	**26.5**	**28.50**
CaO	0.70	**0.5**	**1.00**
TiO_2	0.70	**0.5**	**1.00**
Al_2O_3	0.35	**0.1**	**0.50**
Fe_2O_3	0.23	**0.1**	**0.30**
NaO	0.15	**0.1**	**0.25**
MgO	0.10	**0.05**	**0.20**

SiC99STR

SILICA CARBIDE

SiC99STR is fused Silica Carbide material with typical SiC content of 99%.

SiC99STR

SILICA CARBIDE

Remarks

SiC99STR is fused Silica Carbide material with typical SiC content of 99%.

Sizing

lumps 0-20 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	2.5 0.9g/cm^3

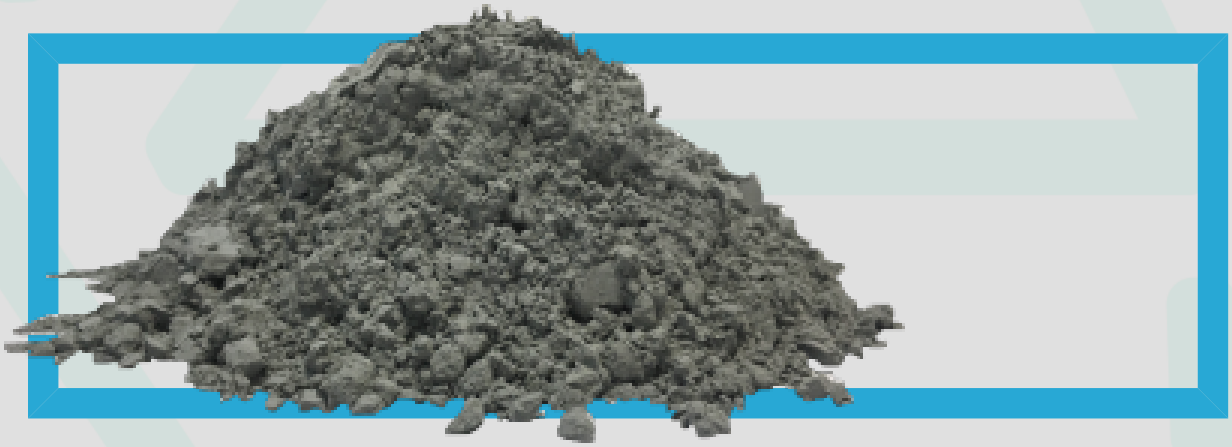
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	99.30	**99**	**99.50**
Fe_2O_3	0.30	**0.15**	**0.45**
TiO_2	0.30	**0.15**	**0.45**
CoO	0.20	**0.15**	**0.25**
SO_3	0.10	**0.05**	**0.15**

SiC97F800

SILICA CARBIDE

SiC97F800 is a fused Silica Carbide based raw material with SiC content of 97% min and particle sizing pass 325 mesh with D50 at 6-10 microns.



SiC97F800

SILICA CARBIDE

Remarks

SiC97F800 is a fused Silica Carbide based raw material with SiC content of 97% min and particle sizing pass 325 mesh with D50 at 6-10 microns.

Sizing

Pass 325 mesh, D50 4-7 microns, with oversize 325mesh+ max 2%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	~0.84g/cm3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	97.80	**97.5**	**98.30**
Si+SiO_2	2.20	**1.8**	**2.50**
Free Carbon	0.35	**0.2**	**0.50**
Fe_2O_3	0.20	**0.1**	**0.30**
H_2O	0.10	**0.05**	**0.30**

SiC97F600

SILICA CARBIDE

SiC97F600 is fused Silica Carbide based material of typical SiC content of 97% minimum and particle size of -325 mesh.

SiC97F600

SILICA CARBIDE

Remarks

SiC97F600 is fused Silica Carbide based material of typical SiC content of 97% minimum and particle size of -325 mesh.

Sizing

Pass 325 mesh D50 6-10 microns with oversize 325mesh+ 2% max.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	~0.9g/cm3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	98.00	**97.8**	**98.30**
Si + SiO_2	2.20	**1.8**	**2.50**
Free Carbon	0.35	**0.2**	**0.50**
Fe_2O_3	0.25	**0.15**	**0.30**
H_2O	0.10	**0.05**	**0.30**

SiC95GR

SILICA CARBIDE

0

SiC95GR

SILICA CARBIDE

Remarks

0

FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Sic	95.74	94	97.00
SiO_2	2.90	2.3	3.50
LOSS	0.38	0	0.50
F.Si	0.27	0.2	0.35
Fe_2O_3	0.15	0.1	0.20

SiC85F

SILICA CARBIDE

SiC85F is fused Silica Carbide based raw material with typical SiC content of 85% min.

SiC85F

SILICA CARBIDE

Remarks

SiC85F is fused Silica Carbide based raw material with typical SiC content of 85% min.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	~2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	88.00	**85**	**93.00**
SiO_2	8.00	**2.0**	**10.00**
Al_2O_3	0.60	**0.4**	**1.00**
Free Si	0.50	**0.2**	**1.00**
CaO	0.10	**0.01**	**0.30**
TiO_2	0.05	**0.02**	**0.10**
K_2O	0.05	**0.01**	**0.10**
MgO	0.05	**0.01**	**0.10**
Na_2O	0.05	**0.01**	**0.10**

SiC80STR

SILICA CARBIDE

SiC80STR is re-crystallized Silica Carbide material with Silica Carbide content of 80% minimum.

SiC80STR

SILICA CARBIDE

Remarks

SiC80STR is re-crystallized Silica Carbide material with Silica Carbide content of 80% minimum.

Sizing

Randomly sized lumps from 0-30 cm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	2.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	82.00	**80**	**85.00**
SiO_2	16.50	**15**	**17.00**
Free Si	1.30	**1**	**1.50**
CaO	0.25	**0.1**	**0.35**
Al_2O_3	0.18	**0.15**	**0.25**
Fe_2O_3	0.12	**0.10**	**0.20**
na_2O	0.05	**0.02**	**0.10**

SiC80

SILICA CARBIDE

SiC80 is plate-shaped and random lumpy sized material of Silica Carbide content ranging from 80-85%.

SiC80
SILICA CARBIDE

Remarks

SiC80 is plate-shaped and random lumpy sized material of Silica Carbide content ranging from 80-85%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	⚪ ⚫	2.3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	82.50	**80**	**85.00**
Fe_2O_3	1.50	**1.2**	**1.70**
Free Carbon	1.30	**1**	**1.50**
Al_2O_3	1.00	**0.7**	**1.50**
S	0.13	**0.01**	**0.20**

SiC80G

SILICA CARBIDE

SiC80G is fused Silica Carbide material with typical SiC content of 80%.

SiC80G

SILICA CARBIDE

Remarks

SiC80G is fused Silica Carbide material with typical SiC content of 80%.

Sizing

grains 0-10 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	~1.6 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	78.50	**76.5**	**80.50**
SiO_2	20.00	**18**	**22.00**
Al_2O_3	0.90	**0.8**	**1.00**
Fe_2O_3	0.23	**0.18**	**0.28**
SO_3	0.20	**0.15**	**0.25**
CaO	0.17	**0.12**	**0.20**

SiC70

SILICA CARBIDE

SiC70 is randomly sized lumpy SiC base material with typical SiC content of around 75% and guaranteed SiC content of 70% minimum.

SiC70
SILICA CARBIDE

Remarks

SiC70 is randomly sized lumpy SiC base material with typical SiC content of around 75% and guaranteed SiC content of 70% minimum.

Sizing

Randomly sized lumps 0 - 30 cm.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C	●	2.2 0.9g/cm^3

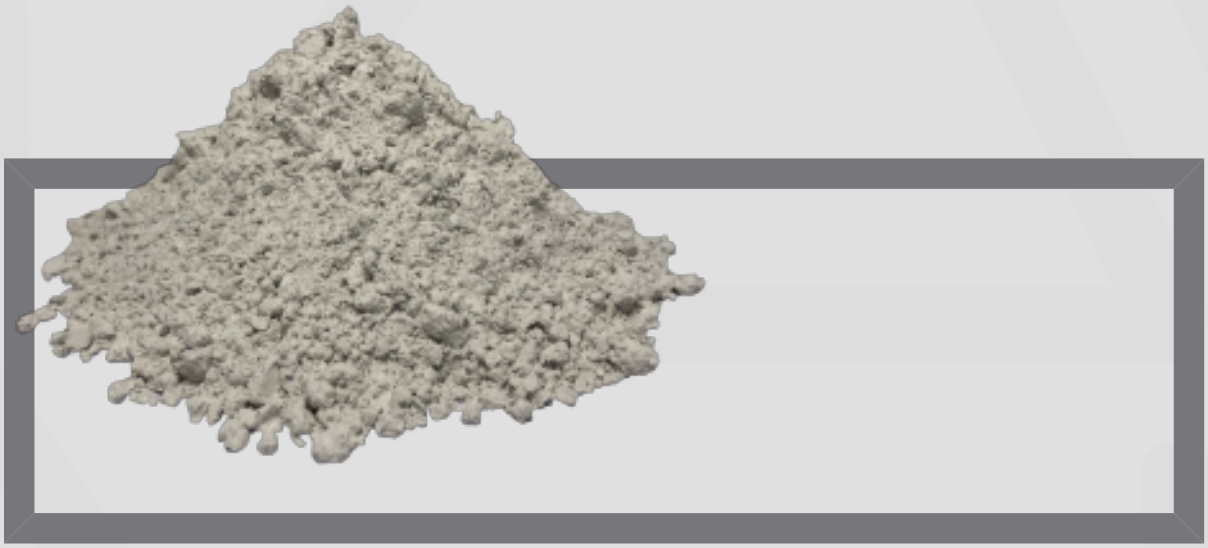
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiC	75.00	70	78.00
SiO_2	20.00	18	23.00
Al_2O_3	1.00	0.5	1.70
Fe_2O_3	0.60	0.3	0.90
CaO	0.30	0.1	0.70
CO	0.25	0	0.35
SO_3	0.20	0.1	0.30
F.Si	0.15	0	0.45
K_2O	0.10	0	0.30
Na_2O	0.05	0	0.20
TiO_2	0.05	0	0.20
MgO	0.05	0	0.20
P_2O_5	0.03	0	0.20
CuO	0.02	0	0.05
NiO	0.02	0	0.05

SPO5

STABILIZERS

0



SPO5
STABILIZERS

Remarks

0

Sizing

0

FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Cr90

CHROME OXIDE

Dense Chrome is sintered and iso-pressed Chrome Oxide based material with dense structure and Cr_2O_3 content typically in the range from 90-94%.

Cr90

CHROME OXIDE

Remarks

Dense Chrome is sintered and iso-pressed Chrome Oxide based material with dense structure and Cr_2O_3 content typically in the range from 90-94%.

Sizing

Lumps: 0-30 cm; Coarse Powdered state: 0-1 mm; 0-3 mm; 0-5 mm; Fine powdered state: Pass 325 mesh (Passing rate 92%)

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C	●	~5 0.9g/cm^3

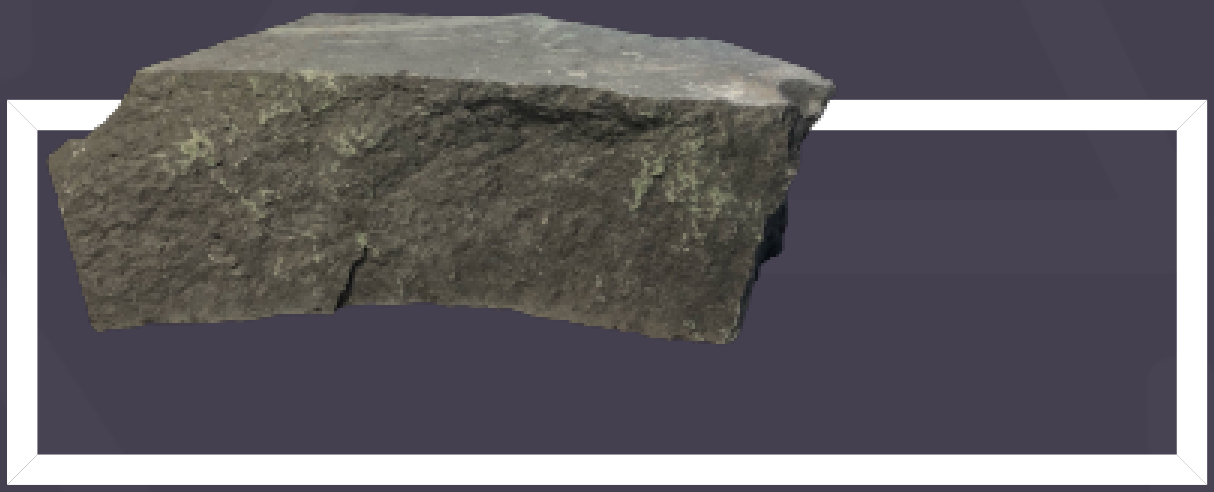
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Cr_2O_3	93.00	**90**	94.00
TiO_2	5.00	**4**	6.00
SiO_2	0.50	**0.3**	0.80
SrO	0.50	**0.1**	0.70
Al_2O_3	0.20	**0.1**	0.30
Fe_2O_3	0.10	**0.05**	0.20
Hex Chrome	0.01	**0**	0.05

AlCr1050

CHROME OXIDE

AlCr1050 is Alumina Chrome material with typical Cr_2O_3 content ranging from 10 - 50% with average WBA at 30%.



AlCr1050

CHROME OXIDE

Remarks

AlCr1050 is Alumina Chrome material with typical Cr_2O_3 content ranging from 10 - 50% with average WBA at 30%.

Sizing

lumps 0-30 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	0 0.9g/cm^3

Chemical Composition & Physical Analysis

HZ90

SILICA STABILIZED ZIRCONIA

HZ90 is Silica stabilized fused High Zirconia material with ZrO_2 content typically ranging from 90-94%.

HZ90

SILICA STABILIZED ZIRCONIA

Remarks

HZ90 is Silica stabilized fused High Zirconia material with ZrO_2 content typically ranging from 90-94%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~5 0.9g/cm^3

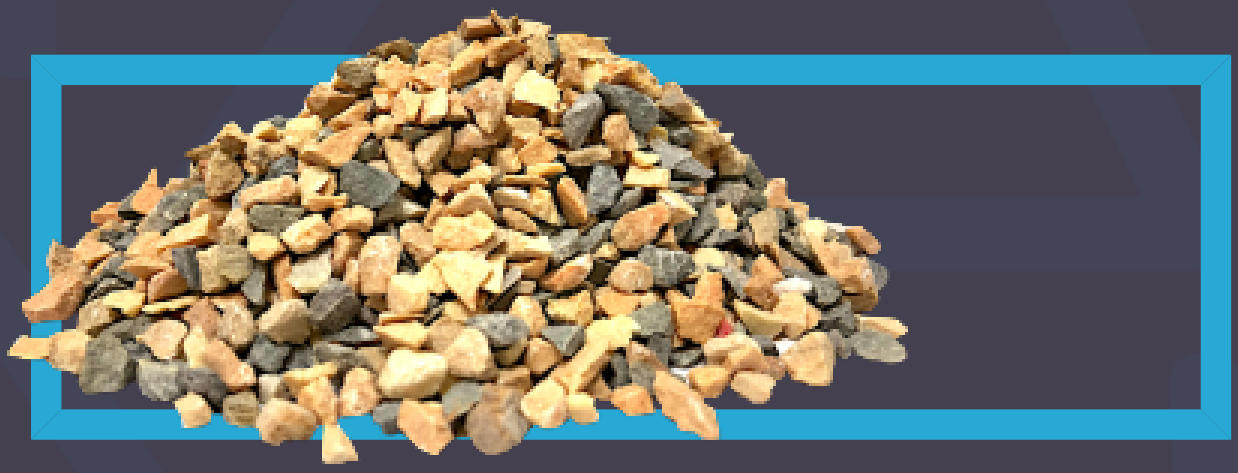
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	92.00	**90**	**94.00**
SiO_2	4.00	**3**	**5.00**
Al_2O_3	0.60	**0.3**	**0.90**
K_2O	0.35	**0.2**	**0.40**
TiO_2	0.20	**0.1**	**0.25**
BaO	0.15	**0.1**	**0.20**
Na_2O	0.08	**0.05**	**0.10**
Fe_2O_3	0.07	**0.05**	**0.15**

HZ90G(3-5)

SILICA STABILIZED ZIRCONIA

HZ90G(3-5) is High Zirconia fused material crushed to grain sizes of 3-5 mm with typical ZrO_2 content in the range of 90-94%.



HZ90G(3-5)

SILICA STABILIZED ZIRCONIA

Remarks

HZ90G(3-5) is High Zirconia fused material crushed to grain sizes of 3-5 mm with typical ZrO_2 content in the range of 90-94%.

Sizing

3-5 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~5 0.9g/cm^3

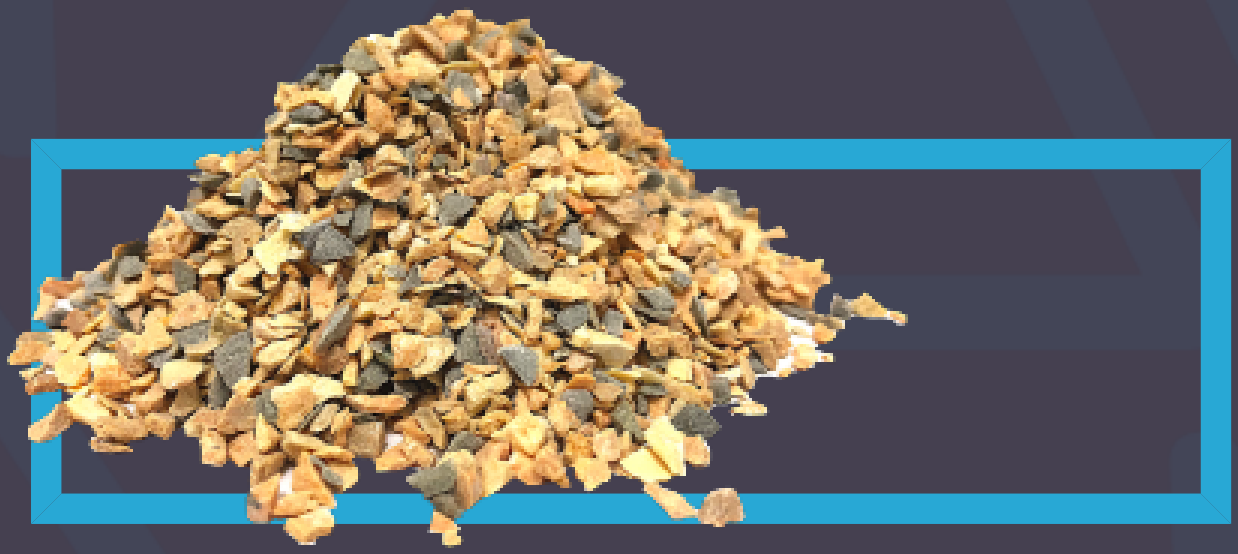
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	92.00	90.00	94.00
SiO_2	4.00		4.25
Al_2O_3	0.50		0.55
K_2O	0.40		0.35
BaO	0.20		0.15
TiO_2	0.15		0.17
Fe_2O_3	0.10		0.15
NaO	0.10		0.07

HZ90G(1-3)

SILICA STABILIZED ZIRCONIA

HZ90G is fused Silica stabilized High Zirconia raw material with typical cumulative ZrO_2+HfO_2 content of 90% minimum.



HZ90G(1-3)

SILICA STABILIZED ZIRCONIA

Remarks

HZ90G is fused Silica stabilized High Zirconia raw material with typical cumulative ZrO_2+HfO_2 content of 90% minimum.

Sizing

Grains crushed to sizings of 0-1; 1-3; 3-5; 5-20 mm.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

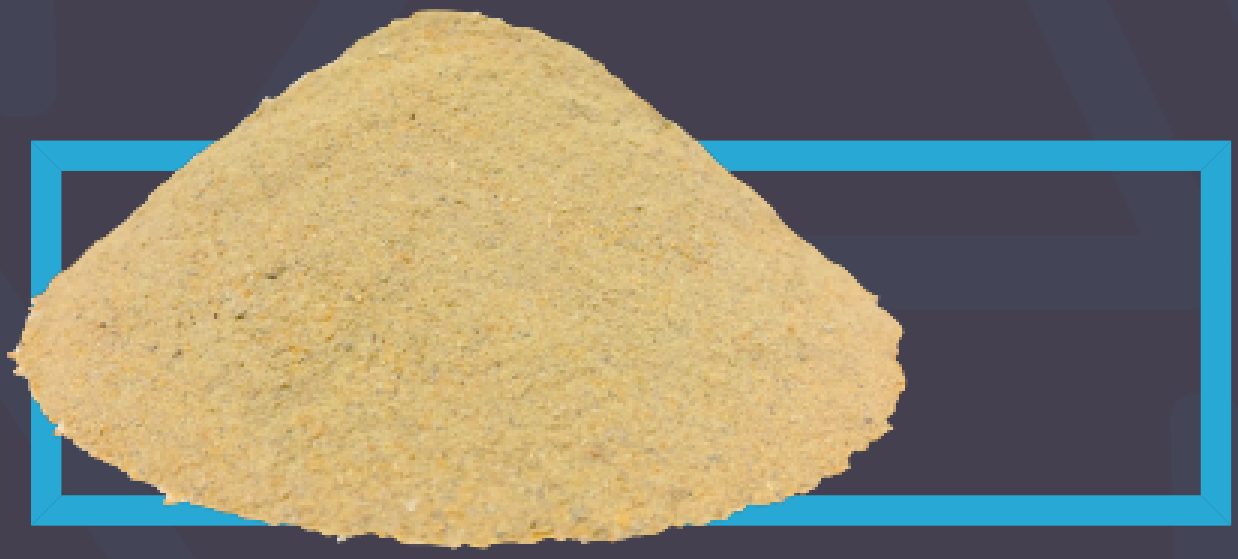
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	92.00	90	94.00
SiO_2	4.00	3	5.00
Al_2O_3	0.60	0.3	0.90
K_2O	0.35	0.2	0.40
Tio_2	0.20	0.1	0.25
Tio_2	0.20	0.1	0.25
Bao	0.15	0.1	0.20
Na_2O	0.08	0.05	0.10
Fe_2O_3	0.07	0.05	0.15
Fe_2O_3	0.07	0.05	0.15

HZ90G(0-1)

SILICA STABILIZED ZIRCONIA

HZ90G(0-1) is a fused Silica stabilized High Zirconia refractory raw material with typical cumulative ZrO_2+HfO_2 content of 90% minimium.



HZ90G(0-1)

SILICA STABILIZED ZIRCONIA

Remarks

HZ90G(0-1) is a fused Silica stabilized High Zirconia refractory raw material with typical cumulative ZrO_2+HfO_2 content of 90% minimium.

Sizing

0-1 mm; Pass 100 mesh; Pass 200 mesh; Pass 325 mesh; Passing rate standard: 92%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	92.00	**90**	**94.00**
SiO_2	4.00	**3**	**5.00**
Al_2O_3	1.60	**1.3**	**2.50**
K_2O	0.35	**0.2**	**0.40**
TiO_2	0.20	**0.1**	**0.25**
BaO	0.15	**0.1**	**0.20**
Na_2O	0.08	**0.05**	**0.10**
Fe_2O_3	0.07	**0.05**	**0.15**

Y94L

YTTRIUM STABILIZED ZIRCONIA

Y94L is Yttrium stabilized chemical Zirconia material with ZrO_2 +HfO_2 cumulative content ranging around 94% and Y_2O_3 of around 5%.

Y94L

YTTRIUM STABILIZED ZIRCONIA

Remarks

Y94L is Yttrium stabilized chemical Zirconia material with ZrO_2+HfO_2 cumulative content ranging around 94% and Y_2O_3 of around 5%.

Sizing

Randomly sized lumps in size ranges from 0-10cm.

BISQUE FIRED (PROCESS)	COLOURATION	BULK DENSITY
1050 C		5.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	94.00	92	94.50
Y_2O_3	5.00	4.5	5.30
TiO_2	0.08	0.05	0.15
Al_2O_3	0.05	0.01	0.15
CaO	0.05	0.01	0.10
Fe_2O_3	0.05	0.01	0.10
MgO	0.05	0.02	0.10
SiO_2	0.03	0.01	0.10

Y94P

YTTRIUM STABILIZED ZIRCONIA

Y94P is Yttrium stabilized chemical Zirconia material with ZrO_2 +HfO_2 cumulative content of 94% minimum and Y_2O_3 content typically around 5%. It comes in a form of powder ranging from 0-1 mm.

Y94P

YTTRIUM STABILIZED ZIRCONIA

Remarks

Y94P is Yttrium stabilized chemical Zirconia material with ZrO_2+HfO_2 cumulative content of 94% minimum and Y_2O_3 content typically around 5%. It comes in a form of powder ranging from 0-1 mm.

Sizing

0 - 1 mm

BISQUE FIRED (PROCESS)	COLOURATION	BULK DENSITY
1050 C		5.7 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	94.00	**93**	**94.50**
Y_2O_3	5.20	**4.6**	**5.50**
LOI $_{1025}$ degrees	3.00	**1.0**	**5.00**
Al_2O_3	0.20	**0.1**	**0.35**
TiO_2	0.10	**0.05**	**0.20**
Fe_2O_3	0.05	**0.02**	**0.10**
CaO	0.05	**0.02**	**0.15**
MgO	0.05	**0.02**	**0.10**
SiO_2	0.03	**0.01**	**0.10**

Y94PP

YTTRIUM STABILIZED ZIRCONIA

Y94PP is fully reprocessed chemical Yttrium stabilized Zirconia with ZrO_2+HfO_2 content of 94% minimum and Y_2O_3 content of around 5%.

Y94PP

YTTRIUM STABILIZED ZIRCONIA

Remarks

Y94PP is fully reprocessed chemical Yttrium stabilized Zirconia with ZrO_2+HfO_2 content of 94% minimum and Y_2O_3 content of around 5%.

BISQUE FIRED (PROCESS)	COLOURATION	BULK DENSITY
1050 C		~5.7 0.9g/cm³

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	94.00	**93.5**	**94.50**
Y_2O_3	5.00	**4.6**	**5.30**
LOI $_{1000}$ Degrees Celsius	0.40	**0.2**	**0.60**
Al_2O_3	0.38	**0.3**	**0.45**
Na_2O	0.04	**0.01**	**0.10**
Fe_2O_3	0.03	**0.01**	**0.10**
SiO_2	0.03	**0.01**	**0.05**

Y_2O_3

YTTRIUM STABILIZED ZIRCONIA

0

Y2O3

YTTRIUM STABILIZED ZIRCONIA

Remarks

0

FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	49.66	**48**	**51.00**
Y_2O_3	46.03	**45**	**47.00**
ZrO_2+HfO_2	2.15	**2.10**	**2.20**
LOSS	1.95	**0.9**	**2.10**
Na_2O	0.06	**0.05**	**0.07**
Fe_2O_3	0.02	**0.01**	**0.03**

YSZ90

YTTRIUM STABILIZED ZIRCONIA

YSZ90 is a fused Yttrium stabilized Zirconia material with ZrO_2 content of around 90% and Y_2O_3 content of around 8%.

YSZ90

YTTRIUM STABILIZED ZIRCONIA

Remarks

YSZ90 is a fused Yttrium stabilized Zirconia material with ZrO_2 content of around 90% and Y_2O_3 content of around 8%.

Sizing

0 - 1 mm.

ELECTRODE FUSED (PROCESS)	COLOURATION	BULK DENSITY
2100 C		~5 0.9g/cm^3

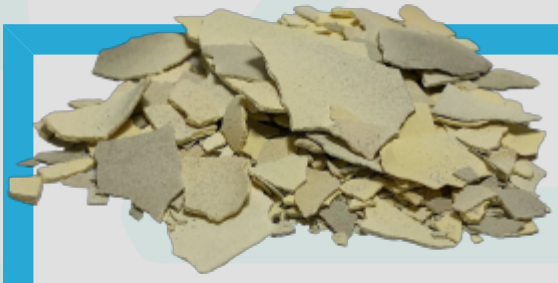
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	91.00	**89**	**93.00**
Y_2O_3	8.50	**8**	**9.00**
Gd_2O_3	0.45	**0.3**	**0.60**
P_2O_5	0.25	**0.2**	**0.40**
TiO_2	0.10	**0.05**	**0.20**
Free Fe	0.05	**0.03**	**0.10**
MgO	0.05	**0.2**	**0.10**
Fe_2O_3	0.03	**0.01**	**0.10**

YZr93YL

YTTRIUM STABILIZED ZIRCONIA

0



YZr93YL

YTTRIUM STABILIZED ZIRCONIA

Remarks

0

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	90.66	**89.6**	**91.00**
Y_2O_3	8.09	**7.59**	**8.50**
SiO_2	0.57	**0.45**	**0.63**
LOSS	0.25	**0.1**	**0.35**
Al_2O_3	0.09	**0.05**	**0.13**
Na_2O	0.07	**0.04**	**0.10**
TiO_2	0.05	**0.03**	**0.07**

YZr93Y

YTTRIUM STABILIZED ZIRCONIA

0

YZr93Y

YTTRIUM STABILIZED ZIRCONIA

Remarks

0

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	93.00	92.5	93.50

YZr93WL

YTTRIUM STABILIZED ZIRCONIA

YZr93WL is a Yttrium stabilized Zirconia material with typical Y_2O_3 content of 7% and ZrO_2+HfO_2 cumulative content of around 90%

YZr93WL

YTTRIUM STABILIZED ZIRCONIA

Remarks

YZr93WL is a Yttrium stabilized Zirconia material with typical Y_2O_3 content of 7% and ZrO_2 +HfO_2 cumulative content of around 90%

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		1 0.9g/cm^3

Chemical Composition & Physical Analysis

YZr93W

YTTRIUM STABILIZED ZIRCONIA

0

YZr93W

YTTRIUM STABILIZED ZIRCONIA

Remarks

0

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	90.00	88	91.00
Y_2O_3	7.60	6.6	8.60
SiO_2	0.60	0.3	0.90
LOI	0.37	0	0.40

NZ95

MAGNESIA STABILIZED ZIRCONIA

NZ95 is Magnesia stabilized Zirconia material with ZrO_2 content of 95% minimum and MgO content of 2.4%. Materials come in a random lumpy form.

NZ95

MAGNESIA STABILIZED ZIRCONIA

Remarks

NZ95 is Magnesia stabilized Zirconia material with ZrO_2 content of 95% minimum and MgO content of 2.4%. Materials come in a random lumpy form.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	95.50	**94.5**	**96.50**
MgO	2.40	**2.2**	**2.60**
SiO_2	0.50	**0.2**	**1.10**
Fe_2O_3	0.20	**0.1**	**0.30**
TiO_2	0.10	**0.05**	**0.20**
Al_2O_3	0.10	**0.05**	**0.40**
CaO	0.05	**0.01**	**0.10**
K_2O	0.05	**0.01**	**0.10**
Na_2O	0.03	**0.01**	**0.05**

SG95

MAGNESIA STABILIZED ZIRCONIA

SG95 is Magnesia stabilized Zirconia material with ZrO_2 content of 95% minimum.

SG95

MAGNESIA STABILIZED ZIRCONIA

Remarks

SG95 is Magnesia stabilized Zirconia material with ZrO_2 content of 95% minimum.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~ 4.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	95.50	**95**	**96.00**
MgO	1.80	**1.4**	**2.00**
SiO_2	0.60	**0.3**	**0.90**
CaO	0.35	**0.1**	**0.50**
Fe_2O_3	0.35	**0.1**	**0.50**
Al_2O_3	0.25	**0.1**	**0.50**
TiO_2	0.25	**0.1**	**0.40**
Na_2O	0.10	**0.05**	**0.15**
K_2O	0.05	**0.02**	**0.10**

SG95(0-5)

MAGNESIA STABILIZED ZIRCONIA

SG95(0-5) is Magnesia stabilized Zirconia material obtained crushing SG95 grade with ZrO_2 95% minimum and MgO content ranging around 1.8%.

SG95(0-5)

MAGNESIA STABILIZED ZIRCONIA

Remarks

SG95(0-5) is Magnesia stabilized Zirconia material obtained crushing SG95 grade with ZrO_2 95% minimum and MgO content ranging around 1.8%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	95.50	**95**	**96.00**
MgO	1.80	**1.4**	**2.00**
SiO_2	0.60	**0.3**	**0.90**
Fe_2O_3	0.35	**0.1**	**0.50**
CaO	0.35	**0.1**	**0.50**
TiO_2	0.25	**0.1**	**0.40**
Al_2O_3	0.25	**0.1**	**0.50**
Na_2O	0.10	**0.05**	**0.15**
K_2O	0.05	**0.02**	**0.10**

SG95F

MAGNESIA STABILIZED ZIRCONIA

SG95F is Magnesia stabilized Zirconia material with typical ZrO_2 +HfO_2 content of 95% and Magnesia Oxide content of around 1.7%.

SG95F

MAGNESIA STABILIZED ZIRCONIA

Remarks

SG95F is Magnesia stabilized Zirconia material with typical ZrO_2+HfO_2 content of 95% and Magnesia Oxide content of around 1.7%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~5 0.9g/cm^3

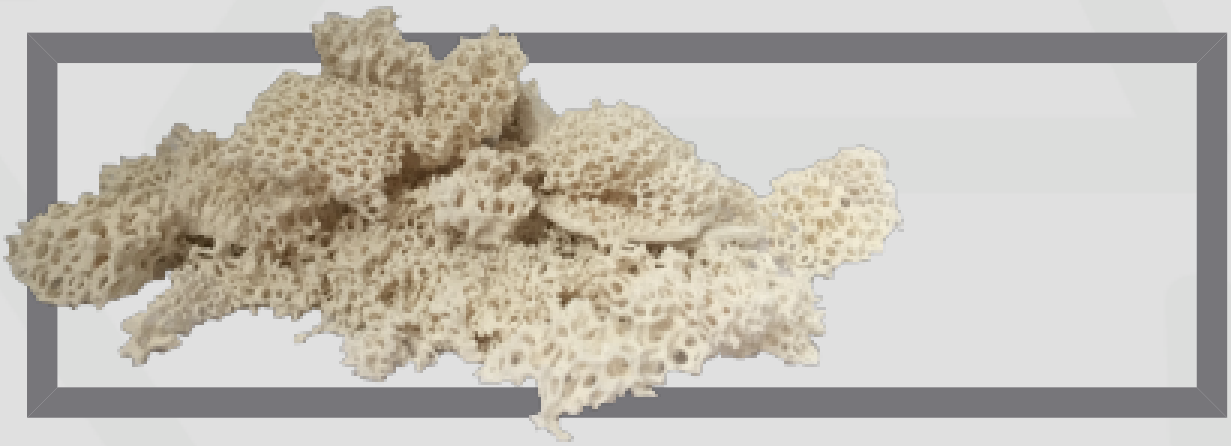
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	95.50	**95**	**96.00**
MgO	1.80	**1.4**	**2.00**
SiO_2	0.60	**0.3**	**0.90**
Fe_2O_3	0.35	**0.1**	**0.50**
CaO	0.35	**0.1**	**0.50**
TiO_2	0.25	**0.1**	**0.40**
Al_2O_3	0.25	**0.1**	**0.50**
Na_2O	0.10	**0.05**	**0.15**
K_2O	0.05	**0.02**	**0.10**

W95

MAGNESIA STABILIZED ZIRCONIA

W95 grade is a sintered lumpy magnesia stabilized Zirconia material with ZrO_2 content of 96% minimum.



W95

MAGNESIA STABILIZED ZIRCONIA

Remarks

W95 grade is a sintered lumpy magnesia stabilized Zirconia material with ZrO_2 content of 96% minimum.

- (PROCESS)	COLOURATION	BULK DENSITY
-		4.6 0.9g/cm³

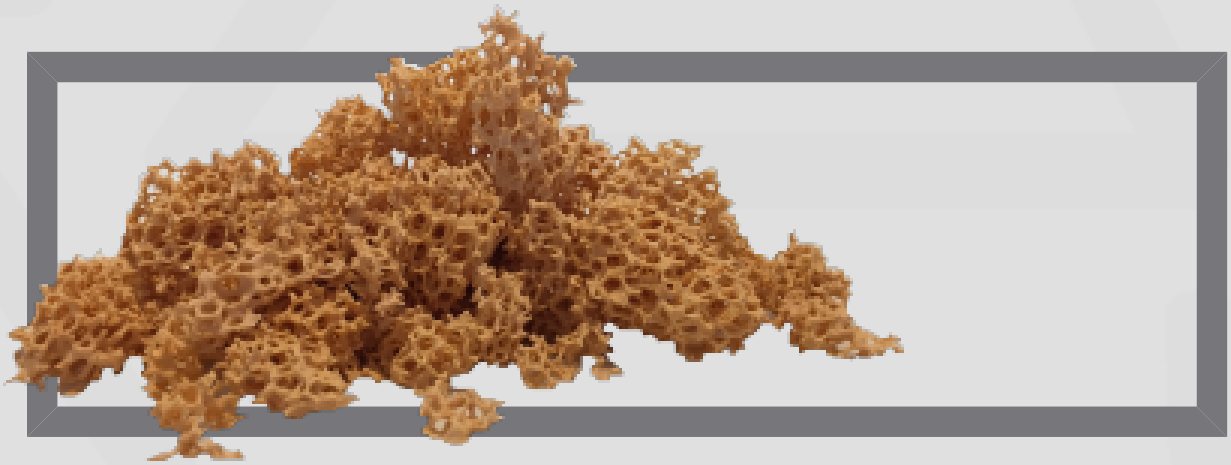
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	96.00	**95.5**	**96.50**
MgO	2.80	**2.6**	**3.00**
SO_3	0.23	**0.15**	**0.30**
TiO_2	0.12	**0.1**	**0.15**
Fe_2O_3	0.12	**0.1**	**0.15**
Na_2O	0.06	**0.03**	**0.09**
CaO	0.06	**0.03**	**0.09**
Al_2O_3	0.05	**0.01**	**0.10**
SiO_2	0.05	**0.02**	**0.10**

O95

MAGNESIA STABILIZED ZIRCONIA

O95 is Magnesia stabilized Zirconia material, which comes in random lumpy form sized from 0 to 10 cm and ZrO_2 content of 95% min.



O95

MAGNESIA STABILIZED ZIRCONIA

Remarks

O95 is Magnesia stabilized Zirconia material, which comes in random lumpy form sized from 0 to 10 cm and ZrO_2 content of 95% min.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~4.6 0.9g/cm^3

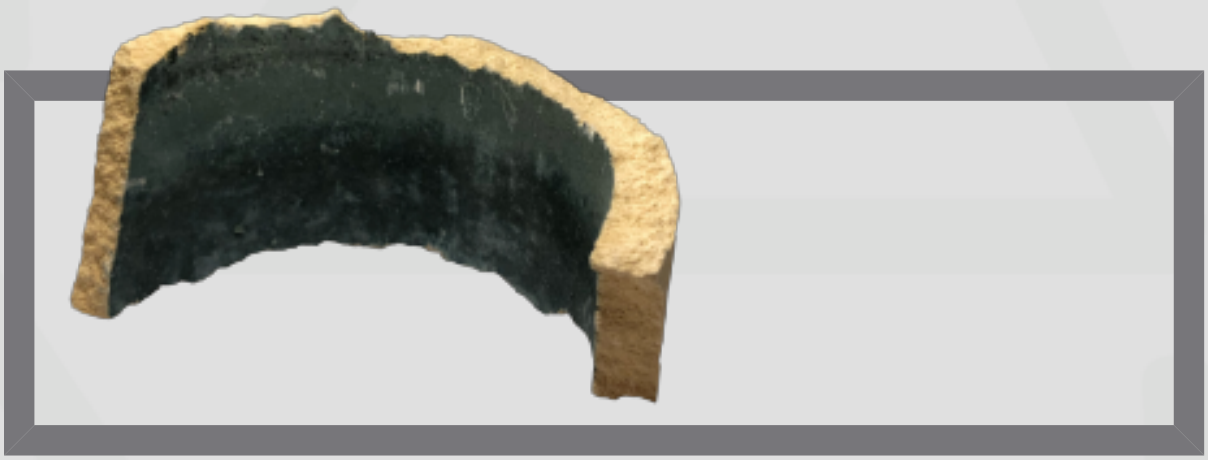
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	95.50	**95**	**96.00**
MgO	2.60	**2.5**	**2.80**
SiO_2	0.30	**0.2**	**0.40**
Fe_2O_3	0.23	**0.2**	**0.25**
Al_2O_3	0.15	**0.1**	**0.20**
TiO_2	0.15	**0.1**	**0.20**
SO_3	0.15	**0.1**	**0.20**
Na_2O	0.05	**0.02**	**0.08**
CaO	0.04	**0.02**	**0.07**
BaO	0.03	**0.01**	**0.05**

ZR90CR

MAGNESIA STABILIZED ZIRCONIA

0



ZR90CR

MAGNESIA STABILIZED ZIRCONIA

Remarks

0

Sizing

0

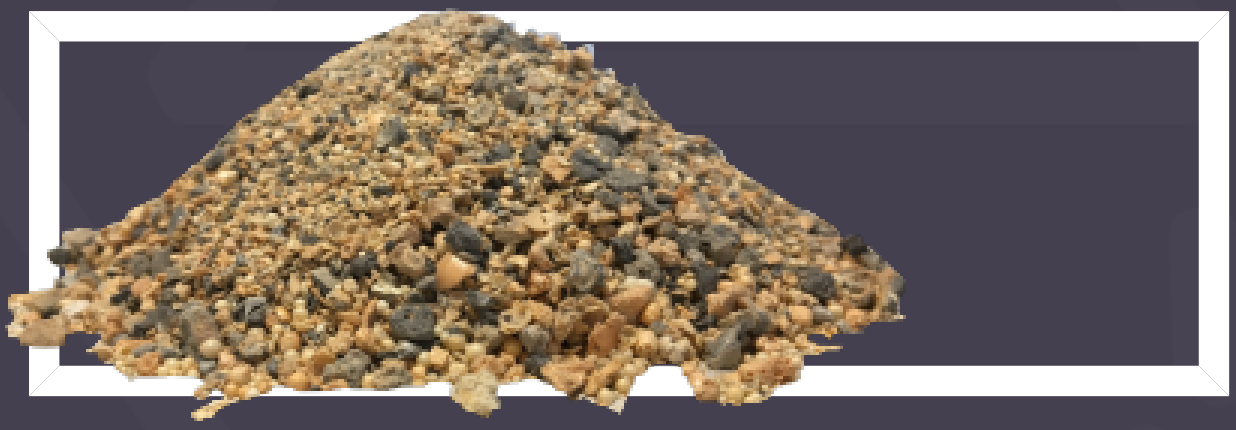
FIRED (PROCESS)	COLOURATION	BULK DENSITY
900 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Z2R3F

OTHER HIGH ZIRCONIA MATERIALS

Z2R3F is fused high Zirconia raw materials which comes at ZrO_2 content at 97% minimum and SiO_2 content ranging from 1 to 2.5% maximum. Material is a mixture of bubble Zirconia and fused Zirconia grade.



Z2R3F

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Z2R3F is fused high Zirconia raw materials which comes at ZrO_2 content at 97% minimum and SiO_2 content ranging from 1 to 2.5% maximum. Material is a mixture of bubble Zirconia and fused Zirconia grade.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~5 0.9g/cm^3

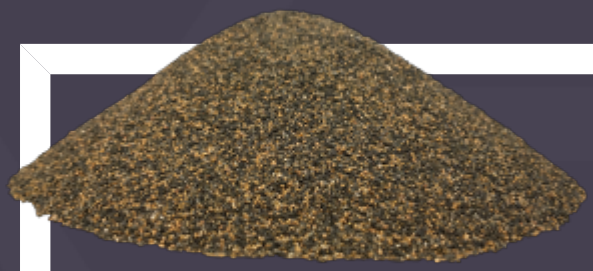
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	97.80	**97**	**98.50**
SiO_2	1.30	**0.8**	**2.50**
Al_2O_3	0.35	**0.2**	**0.65**
TiO_2	0.17	**0.15**	**0.20**
Fe_2O_3	0.05	**0.03**	**0.15**

Z2R0.5F

OTHER HIGH ZIRCONIA MATERIALS

Z2R0.5F is fused Zirconia material with Zirconia content of 97% minimum and SiO_2 max 2.5% and particle size range from 0 - 0.5 mm



Z2R0.5F

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Z2R0.5F is fused Zirconia material with Zirconia content of 97% minimum and SiO_2 max 2.5% and particle size range from 0 - 0.5 mm

Sizing

0 - 0.5 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	98.60	**98**	**99.20**
SiO_2	0.60	**0.15**	**1.00**
Al_2O_3	0.25	**0.1**	**0.45**
TiO_2	0.15	**0.1**	**0.20**
Fe_2O_3	0.05	**0.01**	**0.15**

Z2

OTHER HIGH ZIRCONIA MATERIALS

Z2 is electro fused Zirconia material which comes in the form of a fine powder sized from 3 to 25 microns.

Z2

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Z2 is electro fused Zirconia material which comes in the form of a fine powder sized from 3 to 25 microns.

Sizing

3 to 25 microns.

ELECTRODE FUSED (PROCESS)	COLOURATION	BULK DENSITY
2100 C		4.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	97.50	**96.5**	**8.50**
SiO_2	2.00	**1.5**	**2.50**
Al_2O_3	0.30	**0.2**	**0.40**
TiO_2	0.17	**0.1**	**0.20**
Fe_2O_3	0.13	**0.1**	**0.20**

Zr98DBR

OTHER HIGH ZIRCONIA MATERIALS

Zr98DBR is fused Zirconia material with typical ZrO_2 content of around 98% minimum and comes in sizing of pass 150 mesh.

Zr98DBR

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Zr98DBR is fused Zirconia material with typical ZrO_2 content of around 98% minimum and comes in sizing of pass 150 mesh.

Sizing

pass 150 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4.8 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	98.20	**97.5**	**98.50**
Nb_2O_5	0.42	**0.1**	**0.60**
SiO_2	0.40	**0.1**	**0.60**
Y_2O_3	0.20	**0.1**	**0.30**
P_2O_5	0.16	**0.1**	**0.25**
Ta_2O_5	0.15	**0.1**	**0.30**
TiO_2	0.11	**0.05**	**0.20**
Fe_2O_3	0.10	**0.05**	**0.30**
Na_2O	0.02	**0.01**	**0.05**
Sc_2O_3	0.02	**0.01**	**0.03**
Al_2O_3	0.02	**0.01**	**0.05**

Zr90

OTHER HIGH ZIRCONIA MATERIALS

Zr90 is Zirconia material with typical cumulative ZrO_2+HfO_2 content above 90% which comes in the sizing of 0 to 3 mm and typical moisture content of max 5%.

Zr90

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Zr90 is Zirconia material with typical cumulative ZrO_2+HfO_2 content above 90% which comes in the sizing of 0 to 3 mm and typical moisture content of max 5%.

Sizing

0 to 3 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4 0.9g/cm^3

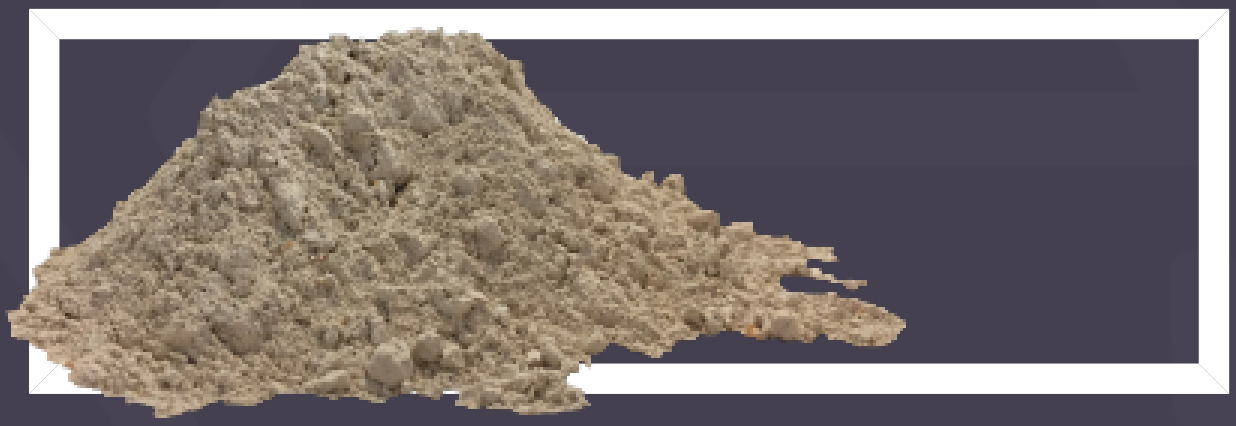
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	96.00	**93**	**97.00**
SiO_2	1.50	**0.75**	**2.25**
MgO	1.00	**0.5**	**1.50**
LOSS	0.50	**0**	**1.00**
Fe_2O_3	0.30	**0.15**	**0.45**
Al_2O_3	0.20	**0.1**	**0.30**
CaO	0.20	**0.1**	**0.30**

Zr79Y20

OTHER HIGH ZIRCONIA MATERIALS

Zr79Y20 is a fused Chemical Zirconia material with typical ZrO_2 content of 79% and Y_2O_3 content of 20%. Material comes in the form of coarse powder sized 0-1 mm.



Zr79Y20

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Zr79Y20 is a fused Chemical Zirconia material with typical ZrO_2 content of 79% and Y_2O_3 content of 20%. Material comes in the form of coarse powder sized 0-1 mm.

Sizing

0 - 1 mm with cubic bits of Zirconia.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		4 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	79.00	**78.5**	**79.50**
Y_2O_3	20.50	**20**	**21.00**
LOI $_{1025}$°C	0.15	**0.1**	**0.25**
Fe_2O_3	0.10	**0.05**	**0.20**
Na_2O	0.05	**0.001**	**0.10**
CaO	0.04	**0.01**	**0.10**
TiO_2	0.03	**0.01**	**0.10**
P_2O_5	0.02	**0.01**	**0.05**
SiO_2	0.02	**0.01**	**0.05**
Al_2O_3	0.02	**0.01**	**0.05**
K_2O	0.01	**0.005**	**0.05**
MgO	0.01	**0.005**	**0.02**

Z3H

OTHER HIGH ZIRCONIA MATERIALS

Z3H is fine fused Zirconia material with typical ZrO_2 content of 95% minimum.

Z3H

OTHER HIGH ZIRCONIA MATERIALS

Remarks

Z3H is fine fused Zirconia material with typical ZrO_2 content of 95% minimum.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		4.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	98.20	**97.5**	**98.50**
SiO_2	0.90	**0.5**	**1.50**
Al_2O_3	0.30	**0.2**	**0.40**
Fe_2O_3	0.21	**0.15**	**0.25**
TiO_2	0.18	**0.15**	**0.25**

HIS90

OTHER HIGH ZIRCONIA MATERIALS

HIS90 is fine fused High Zirconia raw material with cumulative ZrO_2+HfO_2 content of 90% minimum.

HIS90

OTHER HIGH ZIRCONIA MATERIALS

Remarks

HIS90 is fine fused High Zirconia raw material with cumulative ZrO_2+HfO_2 content of 90% minimum.

Sizing

Pass 325 mesh. Passing rate: 100% with 90% of particles within range of 3 to 25 microns.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		5 0.9g/cm^3

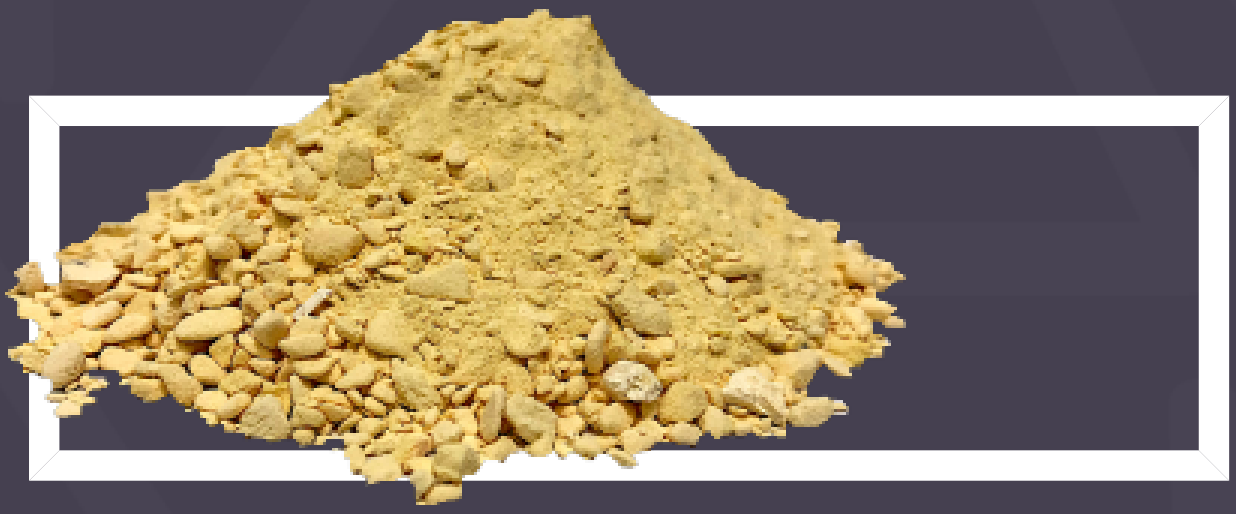
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	93.00	**90**	**96.00**
SiO_2	6.50	**3**	**10.00**
Al_2O_3	0.35	**0.2**	**0.50**
Fe_2O_3	0.30	**0.1**	**0.50**
TiO_2	0.18	**0.1**	**0.25**

MZr97

OTHER HIGH ZIRCONIA MATERIALS

MZr97 is fused Zirconia material with typical ZrO_2 content of 97%.



MZr97

OTHER HIGH ZIRCONIA MATERIALS

Remarks

MZr97 is fused Zirconia material with typical ZrO_2 content of 97%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~ 4.6 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	97.50	**96.5**	**98.50**
Al_2O_3	1.40	**1.00**	**2.00**
SiO_2	0.55	**0.3**	**0.80**
Na_2O	0.25	**0.1**	**0.40**
TiO_2	0.06	**0.3**	**0.10**

CaZr93Cu

CALCIA STABILIZED ZIRCONIA

> CaZr93Cu is Calcia stabilized Zirconia material with typical Zirconia content of 93%.

CaZr93Cu

CALCIA STABILIZED ZIRCONIA

Remarks

CaZr93Cu is Calcia stabilized Zirconia material with typical Zirconia content of 93%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		4.2 0.9g/cm^3

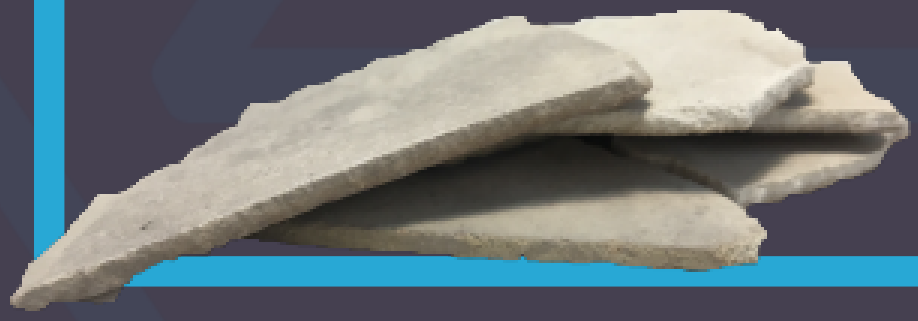
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	88.00	86	90.00
Al_2O_3	5.40	2.7	7.00
Y_2O_3	2.30	1.15	3.45
CaO	2.10	1	3.00
SiO_2	1.10	0.55	1.65
Fe_2O_3	0.20	0.1	0.30
LOSS	0.10	0	0.20

CaZr93PL

CALCIA STABILIZED ZIRCONIA

CaZr93PL is a Calcia stabilized Zirconia plate material with ZrO_2 content of 90% minimum.



CaZr93PL

CALCIA STABILIZED ZIRCONIA

Remarks

CaZr93PL is a Calcia stabilized Zirconia plate material with ZrO_2 content of 90% minimum.

Sizing

Plates in typical thickness of 3 mm in random sizes 0 - 10 cm at longest edge.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~4.5 0.9g/cm^3

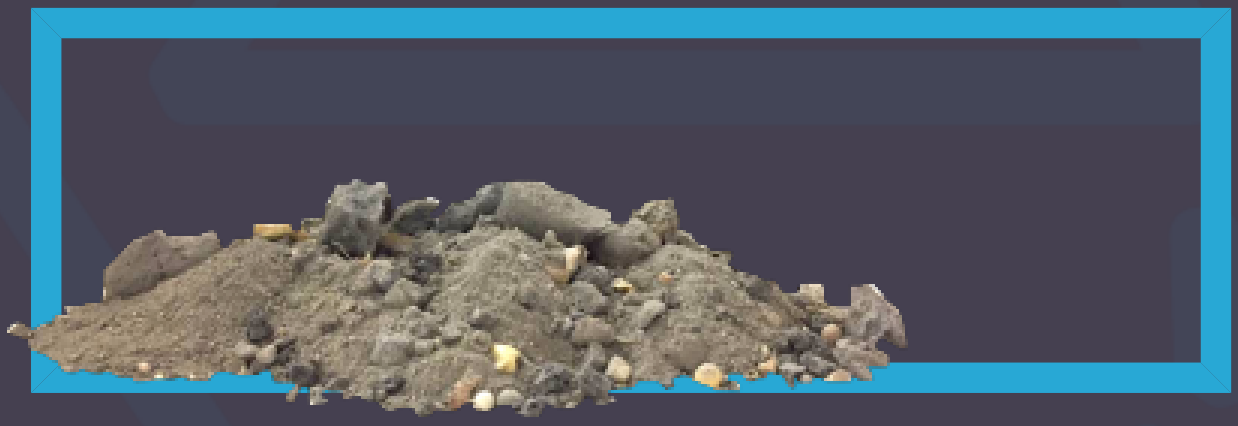
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	94.00	**93**	**94.50**
CaO	3.20	**2.7**	**3.70**
Y_2O_3	0.80	**0.5**	**1.00**
Al_2O_3	0.70	**0.50**	**1.00**
TiO_2	0.25	**0.1**	**0.40**
Fe_2O_3	0.15	**0.10**	**0.30**
CeO_2	0.10	**0.05**	**0.20**

CaZr85

CALCIA STABILIZED ZIRCONIA

CaZr85 is a Calcium stabilized Zirconia containing lumpy and powdered material with an average cumulative ZrO_2+HfO_2 content of 85%.



CaZr85

CALCIA STABILIZED ZIRCONIA

Remarks

CaZr85 is a Calcium stabilized Zirconia containing lumpy and powdered material with an average cumulative ZrO_2+HfO_2 content of 85%.

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		3.5 to 4.6 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
ZrO_2+HfO_2	85.00	75	92.00
SiO_2	7.00	6	9.00
CaO	3.20	2.5	4.00
Al_2O_3	1.50	0.5	2.50
MgO	1.30	0.2	2.00
C	0.85	0.2	2.00
Fe_2O_3	0.35	0.1	0.70
TiO_2	0.20	0.1	0.30
Na_2O	0.05	0.02	0.20

AZ34

ALUMINA ZIRCON

AZ34 is a fused Alumina Zirconate material with ZrO_2 ranging from 34-48% and Al_2O_2 with 48% minimum. Material comes in the form of fine powder at the sizing of pass 200 mesh 75% minimum.

AZ34

ALUMINA ZIRCON

Remarks

AZ34 is a fused Alumina Zirconate material with ZrO_2 ranging from 34-48% and Al_2O_2 with 48% minimum. Material comes in the form of fine powder at the sizing of pass 200 mesh 75% minimum.

Sizing

Pass 200 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	1.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	48.00	**46**	**50.00**
ZrO_2	37.00	**34**	**45.00**
TiO_2	2.00	**1**	**2.50**
SiO_2	0.75	**0.5**	**1.00**
Fe_2O_3	0.70	**0.5**	**0.85**
Na_2O	0.25	**0.1**	**0.35**

AZ30

ALUMINA ZIRCON

AZ30 is semi-fused Alumina Zirconate material with typical Zircon content in the area between 10 to 30%. It has fused and unfused portion.

AZ30

ALUMINA ZIRCON

Remarks

AZ30 is semi-fused Alumina Zirconate material with typical Zircon content in the area between 10 to 30%. It has fused and unfused portion.

Sizing

Pass 325 mesh

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~0.4g/cm3 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	60.00	40	70.00
SiO_2	30.00	0	40.00
ZrO_2+HfO_2	15.00	0	30.00
Others	3.00	2	4.00
TiO_2	1.50	0.5	2.00
Fe_2O_3	0.50	0	2.00

AZ30KR

ALUMINA ZIRCON

AZ30KR is Alumina Zirconia composite material with typical ZrO_2 content of 30%, which comes in the form of fine powder in the sizing of pass 200 mesh.

AZ30KR

ALUMINA ZIRCON

Remarks

AZ30KR is Alumina Zirconia composite material with typical ZrO_2 content of 30%, which comes in the form of fine powder in the sizing of pass 200 mesh.

Sizing

pass 200 mesh

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		~ 2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	49.00	**47**	**51.00**
ZrO_2+HfO_2	30.00	**28**	**32.00**
SiO_2	17.00	**15**	**18.50**
Fe_2O_3	1.10	**0.5**	**1.70**
TiO_2	1.10	**0.5**	**1.70**

SiO99

SILICA OXIDE

SiO99 is fused Silica material without crystoballite and SiO_2 content of 99.7% minimum.

SiO99
SILICA OXIDE

Remarks

SiO99 is fused Silica material without crystoballite and SiO_2 content of 99.7% minimum.

Sizing

typical grain sizes 0-1; 1-3; 3-5 mm

- (PROCESS)	COLOURATION	BULK DENSITY
-		2 0.9g/cm^3

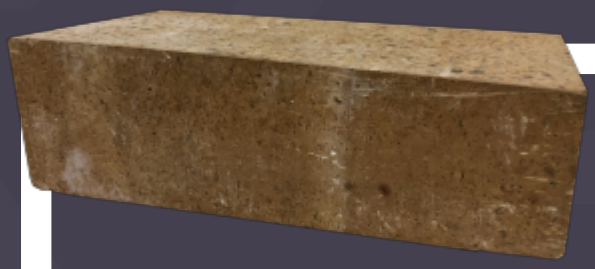
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
SiO_2	99.70	**99.5**	**99.80**
Al_2O_3	0.15	**0.1**	**0.20**
Fe_2O_3	0.08	**0.06**	**0.12**
TiO_2	0.03	**0.02**	**0.05**

DBM97

MAGNESIA

DBM97 is dead burt Magnesia brick material which was obtained from surplus inventories with typical MgO content of 97.5%.



DBM97

MAGNESIA

Remarks

DBM97 is dead burt Magnesia brick material which was obtained from surplus inventories with typical MgO content of 97.5%.

Sizing

Standard brick sizes and Wedge brick sizes as obtained

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		3.0 0.9g/cm^3

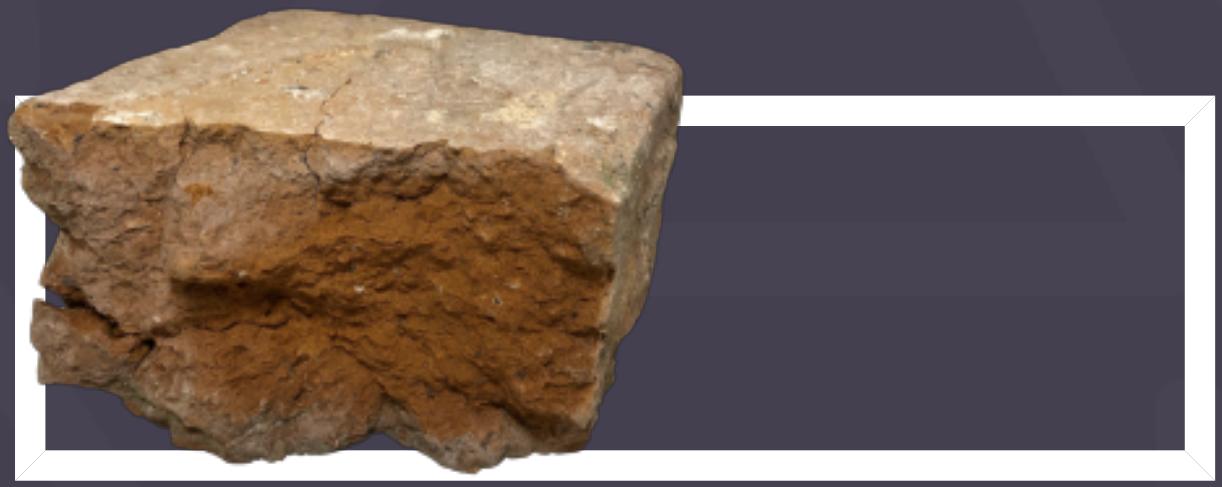
Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
MgO	97.60	**97.0**	**97.80**
CaO	1.10	**0.8**	**1.40**
Fe_2O_3	0.60	**0.5**	**0.70**
SiO_2	0.50	**0.4**	**0.60**
Al_2O_3	0.20	**0.15**	**0.25**

DBM94

MAGNESIA

DBM94 is a sintered Magnesia base material with typical Magnesia content around 92%.



DBM94

MAGNESIA

Remarks

DBM94 is a sintered Magnesia base material with typical Magnesia content around 92%.

Sizing

Randomly sized lumps 0 - 30 mm. Crushed and graded to typical sizes 0-1 mm; 1-3 mm; 3-5 mm.

SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C		2.2 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
MgO	91.50	**91**	**92.00**
LOSS	2.68	**2.6**	**2.80**
CaO	1.71	**1.6**	**1.80**
Al_2O_3	1.56	**1.5**	**1.60**
SiO_2	1.37	**1.3**	**1.40**
Fe_2O_3	0.78	**0.6**	**0.80**
TiO_2	0.06	**0.05**	**0.07**

MgO76

MAGNESIA

MgO76 is sintered Magnesia raw materials with typical MgO content of 76%.

MgO76
MAGNESIA

Remarks

MgO76 is sintered Magnesia raw materials with typical MgO content of 76%.

Sizing

typical grain size 0-1; 1-3; 3-5 mm

- (PROCESS)	COLOURATION	BULK DENSITY
-		2.7 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
MgO	76.90	75	79.00
ZrO_2+HfO_2	8.30	6	10.00
SiO_2	6.00	5	8.00
SO_3	3.80	2	5.00
Na_2O	1.60	1	2.50
CaO	0.70	0.3	1.00
Fe_2O_3	0.30	0.1	0.50
Al_2O_3	0.20	0.1	0.40
K_2O	0.20	0.1	0.40
TiO_2	0.02	0.01	0.10

MgCr20

MAGNESIA

MgCr20 is Magnesia Chrome material with typical Chrome content of around of 20%

MgCr20
MAGNESIA

Remarks

MgCr20 is Magnesia Chrome material with typical Chrome content of around of 20%

Sizing

lumps 0-1; 1-3; 3-5 mm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C	●	2.3 0.9g/cm^3

Chemical Composition & Physical Analysis

MAGAL80

MAGNESIA

0

MAGAL80

MAGNESIA

Remarks

0

Sizing

0

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		0 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
MgO_2	85.00	**82**	**87.00**
Al_2O_3	12.00	**11**	**13.00**

C99

GRAPHITES

0

C99
GRAPHITES

Remarks

0

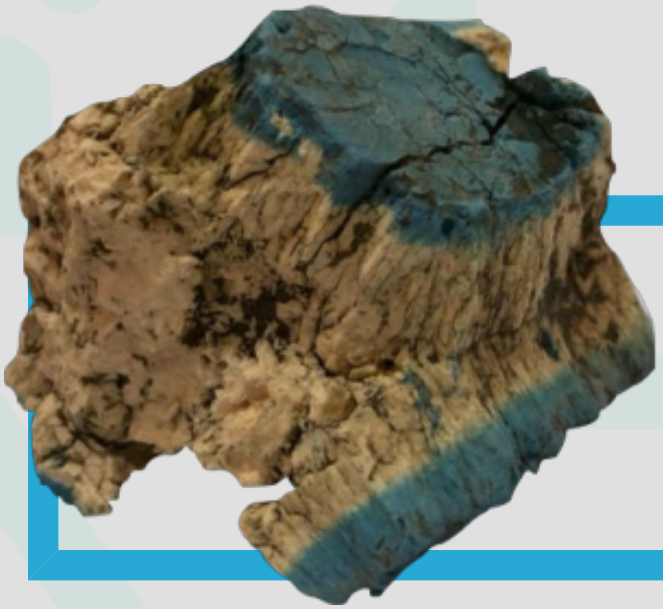
SINTERED (PROCESS)	COLOURATION	BULK DENSITY
1400 C	●	0 0.9g/cm^3

Chemical Composition & Physical Analysis

ZrO26CRF

LOW ZIRCONS

ZrO_26CRF is Alumina Zircon Silicate base material with typical ZrO_2 content of 26% minimum.



ZrO26CRF

LOW ZIRCONS

Remarks

ZrO26CRF is Alumina Zircon Silicate base material with typical ZrO_2 content of 26% minimum.

Sizing

0-30 cm

FUSED (PROCESS)	COLOURATION	BULK DENSITY
1650 C		~2.5 0.9g/cm^3

Chemical Composition & Physical Analysis

Name	Typical	Min %	Max %
Al_2O_3	47.50	45	49.00
ZrO_2+HfO_2	28.00	26	30.00
SiO_2	15.00	13	17.00
Na_2O	7.50	5	9.00
TiO_2	0.10	0.05	0.30
Fe_2O_3	0.10	0.05	0.30
CaO	0.05	0.02	0.20
MgO	0.05	0.02	0.20