

MgZrO₂B

- A spray dried powder ideally suited for production of structural ceramic.
- Zirconia stabilization occurs during sintering.

TYPICAL CHEMICAL ANALYSIS

ZrO ₂ +HfO ₂ *	Al ₂ O ₃	SiO ₂	Na ₂ O	TiO ₂	Fe ₂ O ₃	CaO	MgO	H ₂ O (105°C)	L.O.I. (105°C - 1000°C)
95.80%	0.08%	0.08%	0.20%	0.08%	0.03%	0.05%	3.00%	0.20%	3.90%

* by difference on calcined product

PARTICLE SIZE DISTRIBUTION

Distribution for granulates:

< 40 µm	5 %
40-63 µm	15 %
63-106 µm	40 %
>106 µm	40 %

D50 of the powder* 0.8 µm

* Analytical method: Sedigraph 5100

CRYSTAL STRUCTURE _____ Monoclinic

PHYSICAL PROPERTIES

Fired density	5.6 g/cm ³
Green density	3.5 g/cm ³
Hardness	1275 MPa
Toughness (K _{1C}) - indentation method	6.8 MPa x m ^{1/2}
Shrinkage	18 %

This data has been measured on small parts (<100 cm³). These parts have been shaped under an unidirectional pressure at 200 MPa and sintered at 1680°C.

SAFETY DATA SHEET _____ DS MS ZT 27

PACKAGING

25 kg multiwalled moisture proof paper bags.



MAIN APPLICATIONS

- Structural ceramics
- Mechanical parts
- Wire drawing
- Pumps
- Valves

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