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## ZIRCONIA DENSE BALLS TYPE ZDB

Zirconia Dense Balls, Type **ZDB**, are fully sintered yttria-stabilized zirconia solid balls. These spherical balls are ideal for use as a fully compliant setting material for sintering milled copings. Our standard product, Type **ZDB-1** is 2.0 mm +/- 0.3mm diameter.

## **PROPERTIES & CHARACTERISTICS**

Color	Pearl White
Crystal Structure	Tetragonal
True Density, g/cc	6.03
Packing Density, g/cc	3.5
Angle of Repose	15°
Composition, Wt%	
ZrO <sub>2</sub> *	94.7 Minimum
$Y_2O_3$	5.2
SiO <sub>2</sub>	0.03 Maximum
$Fe_2O_3$	0.01 Maximum
TiO <sub>2</sub>	0.01 Maximum
$AI_2O_3$	0.05 Maximum



ZDB-1 flows to a low 15° angle of repose



\*1 - 2 wt% hafnia occurs naturally with zirconia and does not affect performance.

## **APPLICATION INFORMATION**

Zirconia Dense Balls Type **ZDB** are reusable sintering support media for large complex geometries, which need multi-point support and unrestricted shrinkage. Multiple contact points with the ware ensure full support while allowing expansion and/or shrinkage of the ware. Weak bonding of the balls may occur during part sintering. The bonds are easily broken. The melting point of **ZDB** exceeds 4000° F. **ZDB** can be offered in other diameters on request. Please contact us for details.

## **ORDERING INFORMATION**

**ZDB-1** is available in 100 gram, 1 and 5 KG packages.

Package Size	Item Number
ZDB-1, 100 grams	FAHC001
ZDB-1, 1 KG	FAHC002
ZDB-1, 5 KG	FAHC003

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