

## CeramTec ATZ Alumina Toughened Zirconia, Dental Grade

Category : Ceramic , Oxide , Zirconium Oxide

**Material Notes:**

ATZ is an alumina toughened zirconia used in dental applications.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_CeramTec-ATZ-Alumina-Toughened-Zirconia-Dental-Grade.php](http://www.lookpolymers.com/polymer_CeramTec-ATZ-Alumina-Toughened-Zirconia-Dental-Grade.php)

Physical Properties	Metric	English	Comments
Density	5.48 g/cc	0.198 lb/in <sup>3</sup>	DIN EN 623-2
Water Absorption	0.00 %	0.00 %	ASTM-C373
Particle Size	0.25 - 0.35 µm	0.25 - 0.35 µm	Grain
Weibull Modulus	>= 10	>= 10	DIN ENV 843-5

Mechanical Properties	Metric	English	Comments
Vickers Microhardness	1500	1500	HV 0.5; DIN ENV 843-4
Tensile Modulus	260 GPa	37700 ksi	Young's; DIN ENV 843-2
Flexural Strength	1600 MPa	232000 psi	Bending Strength; 4-Point; DIN ENV 843-1
Poissons Ratio	0.28	0.28	DIN ENV 843-2
Fracture Toughness	4.70 MPa-m <sup>1/2</sup>	4.28 ksi-in <sup>1/2</sup>	Vickers

Component Elements Properties	Metric	English	Comments
Al2O3	18 - 22 %	18 - 22 %	
HfO2	1.0 - 2.0 %	1.0 - 2.0 %	
Y2O3	3.6 - 4.1 %	3.6 - 4.1 %	
ZrO2	71 - 74 %	71 - 74 %	

Descriptive Properties	Value	Comments
Color	White	
Monoclinic Content (%)	< 5	
Other Oxides (%)	< 0.1	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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