

Astro Met AmZirOx 86 Zirconia - Zirconium Oxide

Category : Ceramic , Oxide , Zirconium Oxide

Material Notes:

General Description: AmZirOx 86 zirconia (Astro Met Zirconium Oxide) is a yttria stabilized zirconia ceramic material which features high strength and toughness making it a candidate material for use in severe structural applications which exhibit wear, corrosion, abrasion and impact. This material is also commonly referred to as Y-TZP or Yttria Tetragonal Zirconia Polycrystal. AmZirOx 86 zirconia has been developed with a unique micro structure utilizing transformation toughening which allows AmZirOx 86 zirconia to absorb the energy of impacts that would cause most ceramics to fail.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Astro-Met-AmZirOx-86-Zirconia-Zirconium-Oxide.php

Physical Properties	Metric	English	Comments
Bulk Density	6.01 g/cc	0.217 lb/in ³	
Water Absorption	0.00 %	0.00 %	
Particle Size	0.50 µm	0.50 µm	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	1290	1290	
Modulus of Elasticity	204 GPa	29600 ksi	
Flexural Strength	1000 MPa	145000 psi	
Poissons Ratio	0.31	0.31	
Fracture Toughness	7.00 MPa-m ^{1/2}	6.37 ksi-in ^{1/2}	
Shear Modulus	77.8 GPa	11300 ksi	Calculated

Thermal Properties	Metric	English	Comments
CTE, linear	10.3 µm/m-°C	5.72 µin/in-°F	
	@Temperature 25.0 - 1000 °C	@Temperature 77.0 - 1830 °F	
Specific Heat Capacity	1.34 J/g-°C	0.320 BTU/lb-°F	
Thermal Conductivity	2.16 W/m-K	15.0 BTU-in/hr-ft ² -°F	
Maximum Service Temperature, Air	2400 °C	4350 °F	no load

Component Elements Properties	Metric	English	Comments
Y2O3			

Component Elements Properties	^{5.0 %} Metric	^{5.0 %} English	Comments
ZrO2	95 %	95 %	

Descriptive Properties	Value	Comments
Color	Ivory	
Gas Permeation, %	0	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China