

Ceramic Blades And Knives Datasheet

Zirconia and silicon nitride blades for clipper heads, slitting and shearing tools that dull or corrode when made from steel.

Material: Zirconia (ZrO2) and silicon nitride (Si3N4)

Performance advantages: up to 5 times longer service life than standard steel clipper blades, superior hardness, low friction, non-magnetic, corrosion resistance

Industry applications: electric hair clippers, pet grooming clippers, high-speed shearing tools, cutting tools, food

Typical parts: electric hair clippers, pet grooming clippers, adjustable and detachable ceramic blades, high-speed shearing tools

Precision Zirconia ZrO2 Ceramic Blade

Precision zirconia blades ground from fully sintered ZrO2. Zirconia is high strength, high hardness, impact resistant, wear resistant, corrosion resistant, smooth surfaced, low in thermal conductivity and non-magnetic, which suits cutting duty where a steel edge would corrode or magnetise.

Color	White
MOQ	10 pcs
Material	Zirconia
Density	6.0 g/cm3
MONS' Hardness	8.2
Flexural Strength	800 Mpa

Si3N4 Silicon Nitride Ceramic Blade Knife

Silicon nitride offers the best comprehensive performance in structural ceramics. It is high strength, high hardness, wear resistant and corrosion resistant, handles high temperature service, dissipates heat well and has good thermal shock resistance, so it is not afraid of rapid temperature changes.

Material	Silicon Nitride
Color	Black
MOQ	10 pcs
Dimension	Customized
Application	Machinery, electronic, chemical, petroleum etc

Zirconia Ceramic Replacement Clipper Blade

Our precision ceramic clipper blades are the ideal upgrade from traditional metal blades. Made from advanced zirconia ceramic, these blades offer exceptional wear resistance and cutting performance. Compared to standard steel clipper blades, ceramic blades deliver up to 5 times longer service life, thanks to their superior hardness and low friction.

Size	18th, 25th
Color	White, black, yellow, purple
MOQ	100 pcs

Sample delivery	3-5 days
Delivery time	4-7 days

Zirconia Ceramic Properties

Physical Properties		
Colour		white
Density	g/cm3	6.0
Zirconia Content	%	94.40%
Gas permeability		0
Water Absorption	%	0%
Crystal Size	um	0.5
Mechanical Properties		
Rockwell Hardness (45N)	R45N	78
Vickers Hardness (Load 500g)	GPa(Kg/mm2)	11.5 (1175)
Flexural Strength (20C)	MPa	800
Compressive Strength (20C)	MPa	2000
Modulus of Elasticity (20C)	GPa	> 200
Fracture Toughness (20C)	MPam ^{1/2}	9.0
Thermal Properties		
Thermal Conductivity (20C-400C)	W/(m.K)	2.5
Thermal Expansion Coefficient	10-6/C	9.6
Thermal Shock Resistance	dT C	250

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