

Super Fine Alumina Grinding Media

Application:

TAB Alumina grinding beads is widely used in ultra-fine grinding and dispersion of metallic and non-metallic minerals, coatings, inks, paints, dyes, titanium dioxide, pesticides, magnetic materials and other industries.

Specifications:

Performance \ Product	TAB 95
Al ₂ O ₃ (%)	≥95
SiO ₂ (%)	<3
Moh's hardness	9
Vickers hardness	>1300
Compressive strength	>1100N (∅2mm)
Rate of Water Absorption (%)	<0.01
Density (g/cm ³)	≥3.7
Bulk Density (T/m ³)	2.1-2.3
Rapid Wear Resistance	<1.3g/kg · h

Applicable Equipment:

Stirred mill, Polishing machine, Sand mill, Vertical mill and Ball grinding mill, ...etc.

Packaging:

25kg net in PP-bag or big bag of 500 or 1000kg net. 20-24MT/20'FCL.

Key benefits:

- High grinding efficiency for superfine grinding.
- Fine chemical stability & contamination-free to the grinded material.
- Extremely low wear rate .
- Excellent combination of toughness and hardness .
- Technical support provided to optimize milling



Tecera™ International Co.,Ltd.

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■ Specifications:

Performance \ Product	TAB 50	TAB 60	TAB 75
Al ₂ O ₃ (%)	>50	≥60	>75
Moh's hardness	7	7	8
Vickers hardness	>950	>1000	>1000
Compressive strength	>750(∅2mm)	>800N (∅2mm)	>900N (∅2mm)
Rate of Water Absorption (%)	<0.01	<0.01	<0.01
Density (g/cm ³)	≥2.7	≥2.8	≥3.2
Bulk Density (T/m ³)	1.7-1.9	1.7-1.9	1.8-2.0
Rapid Wear Resistance	<2.5g/kg · h	<2.5g/kg · h	<2.5g/kg · h

■ Applicable Equipment:

Stirred mill, Polishing machine, Sand mill, Vertical mill and Ball grinding mill, ...etc.

■ Packaging:

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Zirconia Toughened Alumina Grinding Media (ZTA Grinding Beads)

■ Application:

ZTA series grinding beads is widely used in ultra-fine grinding and dispersion of non-metallic minerals, coatings, inks, paints, dyes, titanium dioxide , pesticides, magnetic materials and other industries.

■ Specifications:

Performance \ Product	ZTA 420
Al ₂ O ₃ (%)	≥70
ZrO ₂ (%)	≥20
Moh's hardness	9
Vickers hardness	>1100
Compressive strength	>1000N (∅2mm)
Rate of Water Absorption (%)	<0.01
Density (g/cm ³)	4.1-4.2
Bulk Density (T/m ³)	2.3-2.5
Rapid Wear Resistance	<1.0g/kg · h

■ Applicable Equipment:

Stirred mill, Polishing machine, Sand mill, Vertical mill and Ball grinding mill ,...etc.

■ Packaging:

25kg net in PP-bag or big bag of 500 or 1000kg net. 20-24MT/20'FCL.

■ Key benefits:

- High grinding efficiency for superfine grinding.
- Fine chemical stability & contamination-free to the grinded material.
- Extremely low wear rate .
- Excellent combination of toughness and hardness .
- Technical support provided to optimize milling



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Zirconium Silicate Grinding Media

■ Application:

Zirconium Silicate Grinding Media is widely used in ultrafine grinding of various minerals, typically in zircon sand, paint, titanium dioxide and other industry.

■ Specification

Specification	TZS320 [®]	TZS360 [®]	TZS400 [®]	TZS420 [®]
Chemical composition	ZrO ₂ Al ₂ O ₃ SiO ₂ Other	ZrO ₂ Al ₂ O ₃ SiO ₂ Other	ZrO ₂ Al ₂ O ₃ SiO ₂ Other	ZrO ₂ Al ₂ O ₃ SiO ₂ Other
Density	>3.25	3.60~3.70	>4.0	4.20min
Packing Density	>1.85	2.20~2.35	>2.35	2.85min
Hardness (Mohs)	8	8	> 8	8min
Roundness	>90%	>90%	>90%	>90%
Size	0.2 ~ 12mm,	0.2 ~ 12mm,	0.4 ~ 13mm,.	0.2 ~ 12mm,
Color	White	White	off-white	White

■ Applicable Equipment:

Stirred mill, Polishing machine, Sand mill, Vertical mill and Ball grinding mill , ... etc.

■ Key benefits:

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- Fine chemical stability & contamination-free to the grinded material.
- Extremely low wear rate .
- Excellent combination of toughness and hardness .
- Technical support provided to optimize milling



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TZ® Series-Zirconia grinding beads and ball

■ Application

The TZ®series Zirconia ceramic grinding beads/ball is used as high class grinding media. Thanks to the extremely low wear loss, the zirconia based ceramic beads/ball is contamination free grinding media. Its widely used in various industries like medicine, food, cosmetics, paints, textiles, Structural Ceramics, Electronics Ceramics, Magnetic material, Metallurgy, printing and dyeing, pigment etc.

■ Performance Index

Item	Performance Index
Main Composition	95% ZrO ₂ , 5% Y ₂ O ₃
Density	> 6.0
Hardness (HRA)	> 87
Thermal Expansion Coefficient(10 ⁻⁶ /k)	9.6(20-400)
Elastic Modulus(GPa)	200-250
Fracture Toughness(Mpa ^{1/2})	10
Bending Strength(Mpa)	>1150
Grain Size(um)	<0.6
Thermal Conductivity(W/m.K)	2.5
Acid-alkali Resistance Performance (Ordinary Temperature)	Excellent

■ Regular Size:

Grinding Beads:

∅0.1-0.2 ∅0.2-0.4 ∅0.4-0.6 ∅0.6-0.8 0.9-1.1

∅1, ∅2, ∅3, ∅5, ∅7, ∅10, ∅12, ∅15, ∅20

Grinding Ball: Ball: ∅30 ∅40 ∅50 ∅55

Grinding Cylinder(mm): φ 3×3, φ 5×5, φ 7×7, φ 10×10, φ 12×12

■ Key Benefit:

1. Contamination free grinding media due to the extremely low wear loss
2. High grinding efficiency due to density up to 6.
3. Excellent impact strength due to the superior toughness.



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