

Alumina Toughened Zirconia (ATZ) Beads **DURA-52**



●Description :

DURA-52 Alumina Toughened Zirconia (ATZ) bead was granulated from the ultra fine zirconium dioxide and alumina powder. The consistent micro poly-crystal benefits high compressive strength and wear resistance of beads. Although there is a lower density than T-TZP (Yttria-Tetragonal Zirconia Polycrystal), the lower unit cost is an obvious plus. It can replace it in more application and is competent the mills with high tip speed up to 14m/s.

●Specialty :

- The specific gravity and hardness are closed the Y-TZP beads;
- Higher wear rate than Y-TZP, but lower unit cost;
- Can handling abrasive concentrates and high viscosity slurries;
- Matching mills: general stirred mills with disc, turbine and pins.

●Application :

- Inks: printing inks such as gravure inks, screen inks and offset inks; inkjet inks, UV inks and water-based inks;
- Coating and paints: prime and top coating of auto, coiling coating, paper coating, emulsion paint and marine paint;
- Pigments: TiO_2 , CaCO_3 and ceramic glazing.

●Chemical Composition :

Composition	$\text{ZrO}_2 + \text{Y}_2\text{O}_3$	Al_2O_3
Wt%	80-90	10-20

●Physical Properties :

Specific Gravity	Bulk Density	Micro Hardness	Compressive Strength	Wear Rate	Color
5.1-5.3kg/dm ³	3.1-3.3kg/L	1100kg/mm ²	180kgf(2mm)	< 20g/T	White

●Sizes :

Model	Sizes (mm)	Model	Sizes (mm)
DYA6	0.6-0.8	DYA18	1.8-2.0
DYA8	0.8-1.0	DYA20	2.0-2.2
DYA10	1.0-1.2	DYA22	2.2-2.5
DYA12	1.2-1.4	DYA25	2.5-2.8
DYA14	1.4-1.6	DYA28	2.8-3.2
DYA16	1.6-1.8	DYA30	3.0-3.5