



CeraPeen™ YZ

High-Density Zirconia Ceramic Shot

Product Description and Technical Data:

CeraPeen™ YZ extends the CeraPeen™ family with fine, high-density zirconia ceramic beads for high-precision and high-energy shot peening. Its very fine and narrow size distributions combine with the high density, hardness and toughness of zirconia ceramic material to deliver controlled peening performance.

The media is suited to applications requiring high levels of compressive stress near the surface and the treatment of complex and precise shapes. Its smooth spherical form supports a smooth surface finish, while chemical inertness and very low particle embedment help minimize contamination of treated parts.



Performance Advantages:

- Maximum level of compressive stress near the surface
- Ability to treat complex and precise shapes
- Smooth surface finish to minimize crack generation
- Chemical inertness with very low particle embedment

Main Applications:

Ultrafine Shot Peening

Fatigue strength, corrosion, pitting wear and micro-fretting applications.

Peening and Forming

High-hardness metals.

Surface Finishing

Precision surface finishing.

Main Users:

Automotive

Aeronautics

Energy

Biomedical



CeraPeen™ YZ Physical Properties:

Property	Typical Value	Units
Specific Gravity	6.0	g/cm ³
Bulk Density	3.2 - 3.7*	kg/L
Vickers Hardness	1250	HV1

* Bulk density depends upon bead size.



CeraPeen™ YZ

Technical Properties

CeraPeen™ | Ceramic Peening & Surface Treatment Media



CeraPeen™ YZ Typical Chemical Analysis:

Composition	wt%
Y2O3-Stabilized Zirconia	99.5
Other	< 0.5

CeraPeen™ YZ Available Sizes:

Grade	YZ350	YZ300	YZ250	YZ200	YZ150	YZ100
Microns	300 - 425	250 - 355	212 - 300	180 - 250	125 - 212	90 - 150

Grade	YZ80	YZ50	YZ50-L	YZ30	YZ20	YZ20-L
Microns	63 - 106	45 - 90	20 - 80	20 - 53	15 - 36	10 - 63

Fine size coverage: 10 - 425 µm

Twelve YZ grades support precision selection for ultrafine and high-energy peening applications.

CeraPeen™ YZ Packaging:

1 kg, 5 kg, 10 kg and 20 kg plastic containers

CeraPeen™ YZ Ordering & Range Identification:

Product Family	CeraPeen™
Product Range	CeraPeen™ YZ - High-Density Zirconia Ceramic Shot
Grade Designation	YZ350 / YZ300 / YZ250 / YZ200 / YZ150 / YZ100 / YZ80 / YZ50 / YZ50-L / YZ30 / YZ20 / YZ20-L