

CeraPeen™ HDC

High-Density Cerium-Stabilized Zirconia Ceramic Shot

**HIGHER
ENERGY.
LONGER LIFE.
SUPERIOR
PERFORMANCE.**

Product Description

CeraPeen™ HDC is a high-density cerium-stabilized zirconia ceramic shot designed for high-energy shot peening, peen forming and precision surface treatment. Its high density and hardness enable superior impact energy for maximum compressive stress, while offering long media life, low dust generation and a smooth, highly spherical morphology for consistent, high-quality finishes.



Performance Advantages

- Higher kinetic energy and intensity transfer
- Long service life and low dust generation
- Smooth spherical media for consistent finishes
- Suitable for high-intensity shot peening and peen forming
- Effective on hard steels, titanium, aluminium and superalloys

Main Applications

- High-energy shot peening
- Peen forming
- Fatigue-life improvement
- Aerospace components
- Automotive components
- Precision surface finishing

Compatible Equipment

- Wet pressure shot peening
- Pneumatic pressure systems
- Suction systems
- Wheel turbine machines
- Robotized peening equipment

CeraPeen™ HDC Physical Properties

Property	Typical Value	Units
Specific Gravity	6.2	g/cm ³
Bulk Density	3.8	kg/L
Vickers Hardness	1180	HV1
Composition	ZrO ₂ + CeO ₂ > 98 wt%	—
Morphology	Highly spherical	—

CeraPeen™ HDC

Technical Properties



CeraPeen™ HDC Typical Chemical Analysis:

Composition	wt%
ZrO ₂ + CeO ₂	> 98
Other	< 2

CeraPeen™ HDC Available Sizes:

Grade	HDC850	HDC550	HDC425	HDC315	HDC250	HDC170
Microns	850 - 1180	425 - 600	300 - 425	212 - 300	150 - 212	90 - 150

Available size coverage: 90 - 1180 µm

Six HDC grades support precision selection for high-energy peening and peen-forming applications.

CeraPeen™ HDC Packaging:

10 kg and 25 kg drums

CeraPeen™ HDC Ordering & Range Identification:

Product Family	CeraPeen™
Product Range	CeraPeen™ HDC - High-Density Cerium-Stabilized Zirconia Ceramic Shot
Grade Designation	HDC850 / HDC550 / HDC425 / HDC315 / HDC250 / HDC170

