

Cerium Oxide Polishing Powder for Optical & Glass Industry



Ceroxid HD - polishing powders based on cerium oxide.

Used for polishing precision optical elements, sapphire and zircon crystals, automotive, flat, decorative glass with different abrasion hardness.

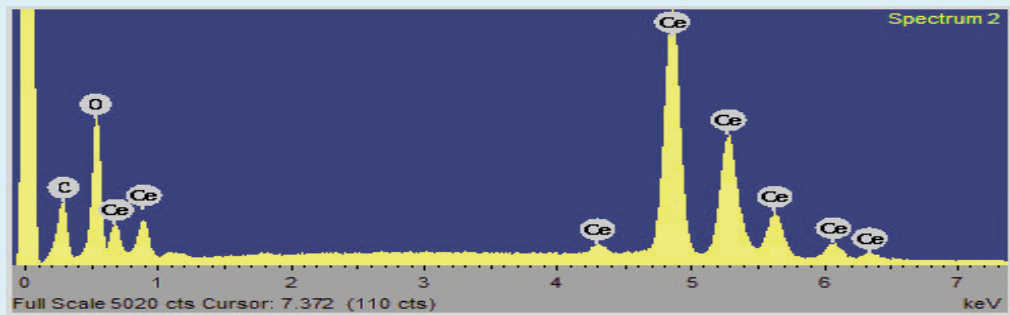
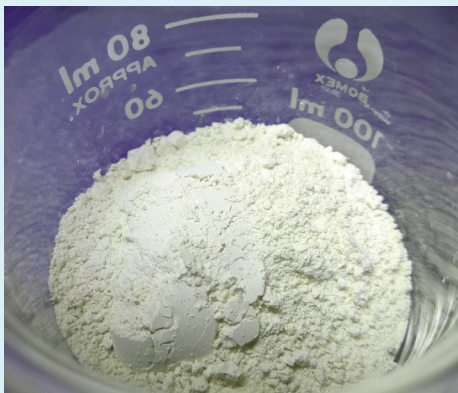
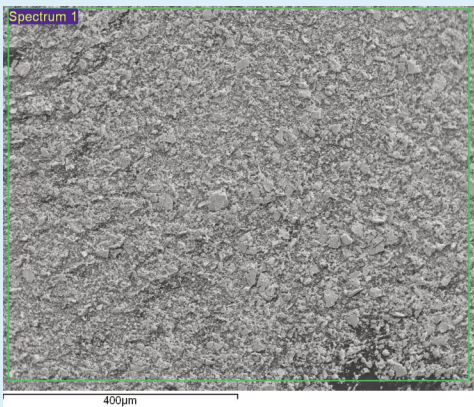
Precision polishing powders based on cerium dioxide contain a specially formulated mixture of rare earth metal oxides with a high degree of chemical cleaning, without phosphates and sulphides.

The controlled mixing of polishing powder during the production process allows changes in composition and in the abrasive ability ensuring selection of the polishing materials with different abrasion resistance.

The average grain size of the powder, size D50%, varies depending on the thermal calcination of hardening during the manufacturing process, it is important to choose the right type of polishing powder for certain types of glass or other machined material.

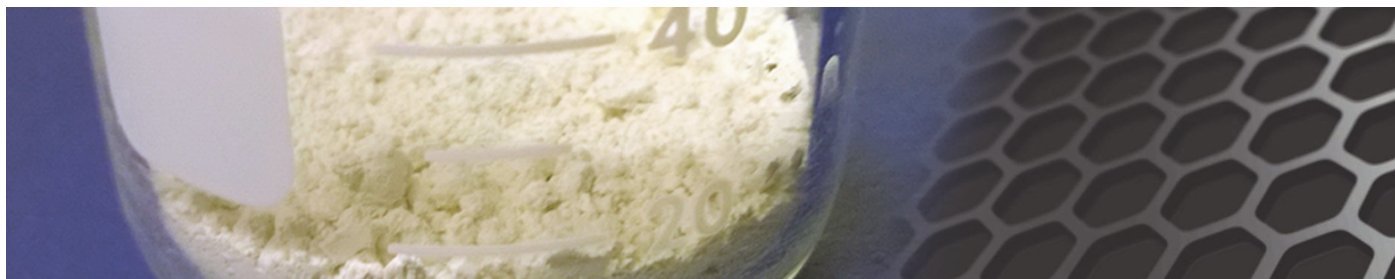
The polishing powder is used in the aqueous finely dispersed suspension.

Spectral analysis shows a high degree of chemical purification of the cerium oxide powder before preparation of the powder polishing composition.



EDX CeO2 powder N1

Element	Line	App. Conc	k ratio	Intensity corr.	Weight%	Weight% sigma	Atomic%
C	K_SERIES	3.07	0.0142	0.7446	13.17	0.23	39.18
O	K_SERIES	6.45	0.02314	1.0529	19.55	0.18	43.66
Ce	L_SERIES	20.15	0.18694	0.9556	67.28	0.24	17.16
Totals					100		



Ceroxid HD W-series Cerium Oxide Polishing Powder, White color

Product	Particle size D50, PSD laser, <i>micron</i>	Particle size D90, PSD laser, <i>micron</i>	Surface area, BET, m ² /g	Chemical composition	Applications
Ceroxid HD W0510	0.5 – 1.0	≤ 3.0	9.85	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40%	Fine polishing optical lens, optical filter, fiber port, for very low rough- ness operation
Ceroxid HD W1015	1.0 – 1.5	≤ 4.5	7.30	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40%	Precision optical lens, optical lanthanide glass, crystals, decorative glass
Ceroxid HD W1520	1.5 – 2.0	≤ 5.6	5.12	TREO: ≥ 95% REO: CeO ₂ 70-80% La ₂ O ₃ 20-30%	Optical lens, prisms, glass with medium abrasion hardness
Ceroxid HD W2535	2.5 – 3.5	≤ 6.8	3.57	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40%	Optical glass with heavy abrasion hard- ness, planar glass



Ceroxid HD R-series Cerium Oxide Polishing Powder, Red — brown color

Product	Particle size D50, PSD laser,	Particle size D90, PSD laser,	Surface area,BET, m ² /g	Chemical composition	Applications
Ceroxid HD R0511	0.5 – 1.0	≤ 3.0	7.31	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 5%	Fine polishing optical lens, optical filter, fiber port, LCD conductive glass, for very low roughness operation
Ceroxid HD R1016	1.0 – 1.5	≤ 3.5	6.50	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 5%	Precision optical glass, other glass low and medium abrasion hardness 150-280 Aa
Ceroxid HD R1526	1.5 – 2.5	≤ 5.5	4.65	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 5%	Optical glass with medium or hard abrasion hardness, crystals bijouterie
Ceroxid HD R2536	2.5 – 3.5	≤ 6.8	3.29	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 5%	Rough polishing optical and other glass, with heavy abrasion hardness
Ceroxid HD R3545	3.3 – 4.5	≤ 11.5	2.75	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 3%	Decorations glass with medium or hard abrasion hardness, crys- tals bijouterie
Ceroxid HD R10S	6.0-12.0	≤ 30.0	1.87	TREO: ≥ 95% REO: CeO ₂ 60-70% La ₂ O ₃ 30-40% Pr ₆ O ₁₁ ≤ 5%	For specific polishing processes, rough polishing decoration glass, zirconium crystals, with heavy abrasion hardness



www.harisdiamond.com
www.abrasivepolishing.cz
 e-mail: harisweb@email.cz

Tel/Fax: +420 241941549
 Tel: +420 241941142
 Psary 52, Prague-West
 252 44 Czech Republic

All pictures and technical data used in this brochure are property of Haris Division. Unauthorized duplication is a violation of copyright law.