

Cerium Oxide

Biz-Material

- Formula : CeO₂
- Appearance : Light yellow powder
- Application : Mainly used as glass decolorizing agent and glass polishing agent, also used as the raw material of cerium metal. High purity cerium oxide is very important in the applications of rare earth fluorescent materials.

Items		Specifications				Typical analyses	Analytical instruments
Formula		CeO ₂	CeO ₂	CeO ₂	CeO ₂		
REO	%	≥ 99	≥ 99	≥ 98	≥ 97.5		
Purity and relative RE impurities							
CeO ₂ /REO	%	≥ 99.99	≥ 99.98	≥ 99.95	≥ 99.50		
La ₂ O ₃ /REO	%	≤ 0.004	≤ 0.01	≤ 0.03	≤ 0.1	≤ 0.01	①
Pr ₆ O ₁₁ /REO	%	≤ 0.003	≤ 0.004	≤ 0.015	≤ 0.1	≤ 0.004	①
Nd ₂ O ₃ /REO	%	≤ 0.001	≤ 0.001	≤ 0.007	≤ 0.05	≤ 0.002	①
Sm ₂ O ₃ /REO	%	≤ 0.001	≤ 0.001	≤ 0.005	≤ 0.03	≤ 0.001	①
Y ₂ O ₃ /REO	%	≤ 0.001	≤ 0.001	≤ 0.001	≤ 0.01	≤ 0.001	①
Non-RE impurities							
Fe ₂ O ₃	%	≤ 0.001	≤ 0.001	≤ 0.01	≤ 0.01	≤ 0.005	②
SiO ₂	%	≤ 0.005	≤ 0.005	≤ 0.01	≤ 0.01	≤ 0.005	
CaO	%	≤ 0.005	≤ 0.005	≤ 0.01	≤ 0.05	≤ 0.006	②
Cl ⁻	%	≤ 0.02	≤ 0.02	≤ 0.03	≤ 0.05	≤ 0.02	
NaO	%				≤ 0.05		
Loss on ignition (1000°C, 1hour)	%	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	

- Notes :
 - ① ICP-AES/ Induction coupler plasma atomic emission spectrograph
 - ② PE-3100/ Atomic absorption spectrophotometer