

Technical Data Sheet

ACS Material Yttrium Oxide (Y₂O₃)

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Contact Information:

Manufacturer: ACS Material, LLC. Address: 959 E Walnut St., Suite 100, Pasadena, CA 91106, USA Phone: (866)-227-0656 Fax: (781)-518-0284 E-Mail: contact@acsmaterial.com Revision: 092717

1. Preparation Method

NA

2. Characterizations

Туре:	Туре А	Туре В
Purity:	>99.99%	>99.99%
Color:	White powder (slightly yellow)	White powder (slightly yellow)
Particle Size:	20-30 nm	80-150 nm
Density:	5.01 g/cm ³	5.01 g/cm ³
Concentration (ppm):	La_2O_3 : ≤ 10	La_2O_3 : ≤ 10
	CeO ₂ : ≤5	CeO ₂ : ≤5
	Pr ₆ O ₁₁ : ≤5	Pr_6O_{11} : ≤ 5
	Nd ₂ O ₃ : ≤5	Nd_2O_3 : ≤ 5
	Sm_2O_3 : ≤ 5	Sm_2O_3 : ≤ 5
	Eu ₂ O ₃ : ≤5	Eu_2O_3 : ≤ 5



TEM Image of ACS Material Y₂O₃ (Type A: 20-30 nm)



TEM Image of ACS Material Y2O3 (Type A: 20-30 nm)



TEM Image of ACS Material Y2O3 (Type B: 80-150 nm)



TEM Image of ACS Material Y_2O_3 (Type B: 80-150 nm)



XRD Analysis of ACS Material Yttrium Oxide (Y2O3)

3. Application Fields

- Widely used in a variety of fluorescent materials, high-quality refractory materials, artificial gemstone laser crystal, superconducting materials.
- They are also used as additives in the coatings used in high-temperature applications, paints and plastics for guarding against UV degradation and also in making permanent magnets.

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