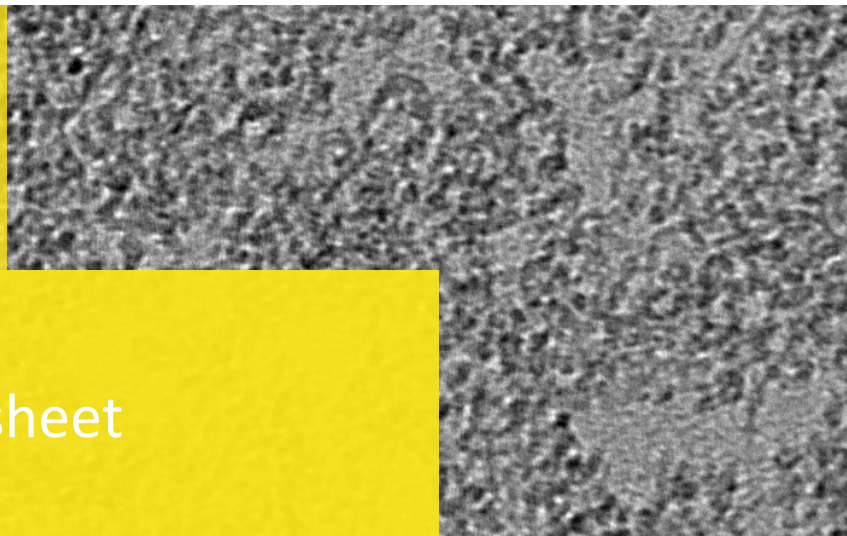
MATHYM

INNOVATIVE NANOMATERIALS

γ-Al_2O_3



Aluminum oxide datasheet

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γ-Al_2O_3 – Aluminum oxide nanoparticles in suspension

Our offer

We offer Al_2O_3 nanoparticles for a variety of applications. They are supplied dispersed in water, and dispersions in other media are under development. They can be used as nanocatalyst materials or nanofillers in composites. In technical ceramic applications, nano-Al_2O_3 can be used as sintering additive to improve sinterability and for the development of novel microstructures.

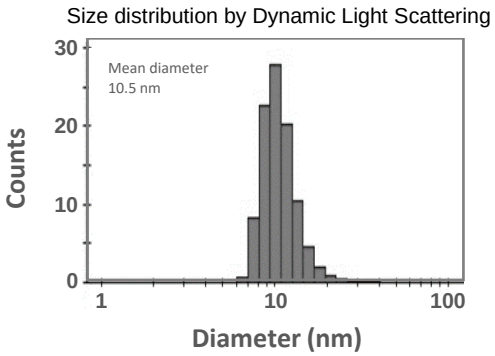
Main benefits

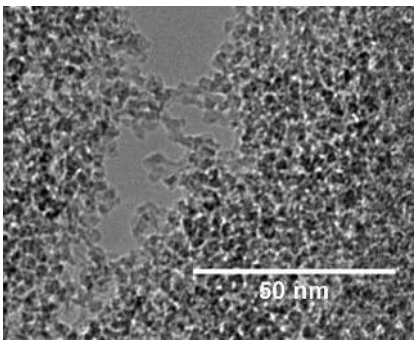
- Ultra-small nanoparticles
- Improved sinterability and optical transmission when incorporated in ceramic materials
- High specific surface area
- High reactivity

Main properties

Chemical formula	Al_2O_3
Crystal structure	Cubic, γ phase
Morphology	Spherical
Average particle size	< 5 nm
Density (theoretical)	3.99 g/cm^3
Refractive index (theoretical)	1.76-1.77
Dispersion solid content	Up to 10 wt.% in water
Dispersion medium	Water, dispersions in other media are under development
Type of functionalization	Depends on dispersion medium and application requirements

Example of size distribution





Available sample size: 5 g to 20 g of dry matter

Provided data are typical values, they are not contractual.

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