

Technical Data Sheet

Nanostructured monoclinic zirconia from Innovnano is available as a powder and suspension (up to 40 wt.% solid content). Superior characteristics ensure optimum performance and resilience for physically demanding applications.

Monoclinic Zirconia (powder and suspension)

Chemical analysis

ZrO ₂ + HfO ₂ + Al ₂ O ₃ (wt. %)	> 99.8
Al ₂ O ₃	< 0.8
HfO ₂	< 2
Y ₂ O ₃	< 0.01
SiO ₂	< 0.005
Fe ₂ O ₃	< 0.02
Na ₂ O	< 0.005
Other oxides (CuO, ZnO, MgO, CaO)	< 0.11

Physical properties (spray-dried powder)

Primary particle D50 (nm)	~ 50
Powder D50 (nm)	< 250
Granule D50 (µm)	~ 60
Specific surface area (m ² /g)	20 ± 3
Monoclinic phase (%)	> 90

Physical properties (suspension)

Primary particle size D50 (nm)	50
Powder D50 (nm)	250
Solids content (wt. %)	to 40
Specific surface area (m ² /g)	20 ± 3
Monoclinic phase (%)	> 90



Nanostructured powders for demanding ceramic applications

Innovnano is a specialist manufacturer of high quality nanostructured zirconia-based powders and aluminium zinc oxide (AZO) sputtering targets. Using a unique synthesis technology - emulsion detonation synthesis (EDS) - Innovnano guarantee small grain sizes and excellent chemical homogeneity for high performance powders that support hi-tech industries.

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