

TECHNICAL DATA SHEET

Monoclinic Zirconia (powder and suspension)

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.

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 |

Enhanced material properties for physically demanding applications

Innovnano is a specialist manufacturer of high quality zirconia-based ceramic powders. Using a unique synthesis technology - emulsion detonation synthesis (EDS) - Innovnano guarantees enhanced material properties so that you can expect more from your ceramics.

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