EXPECT MORE from your ceramic powders with Innovnano

Enabling next generation ceramic components and coatings
Innovnano offers a range of nanostructured yttria-stabilised zirconia and zirconate powders. All powders are manufactured using our EDS technology to suit a diverse range of industry applications, from technical and structural ceramic components to functional coatings.

**The advantages of a nanostructured powder**

Compared to a conventional microstructure, nanostructured ceramic powders have a higher specific surface area for increased reactivity. This translates to improved powder properties and enables lower sintering temperatures, leading to end-product benefits.

With Innovnano’s nanostructured powders, you can produce components, devices or coatings that are stronger, lighter or more durable, to name just a few of the enhanced properties that can be achieved.

For optimal processability, we can provide our powders in two ready-to-use forms:

*Spray-dried ready-to-press powders | suspensions*

<table>
<thead>
<tr>
<th>Our powders</th>
<th>Benefits for your product</th>
</tr>
</thead>
<tbody>
<tr>
<td>High purity</td>
<td>→ Uncompromised ceramic performance</td>
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<tr>
<td>Small grain sizes</td>
<td>→ Improved mechanical properties</td>
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<tr>
<td>Controlled dispersion of mixed oxide components</td>
<td>→ Customisable powder for specific applications</td>
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<tr>
<td>Higher specific surface area and reactivity</td>
<td>→ Lower sintering temperatures, to minimise grain growth and retain beneficial nanostructure</td>
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<tr>
<td>Uniform granular morphology</td>
<td>→ Improved flowability for easy application of powders</td>
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For more detailed information on our complete range of zirconia powders and suspensions, please visit [www.innovnano-materials.com](http://www.innovnano-materials.com)
The performance of your product is highly influenced by the quality, properties and consistency of the materials used in the manufacturing process.

Our patented Emulsion Detonation Synthesis (EDS) technology guarantees that our nanostructured powders are produced under carefully controlled parameters for assured quality, reproducibility and performance, batch after batch.

Involving a cycle of high temperatures and pressures, EDS produces single and mixed oxide powders, with an ultrafine nanostructure and excellent chemical homogeneity, ensuring our powders offer application-optimised properties.

"Future applications are there to be explored and commercialised"

For enhanced material properties in demanding applications, achieve more with Innovnano

www.innovnano-materials.com
The use of our nanostructured ceramic powders allows enhanced control over the structure of materials, to improve their functionality and enable higher performance for next generation, hi-tech ceramics.

Our purpose-built manufacturing facility and expert staff offer all the experience, technology and scalability demanded by the fast-paced ceramic industry:

- New automated technologies optimise and standardise operations
- Production capacity \( \rightarrow 1000 \text{tpa} \)
- Support, product continuity and traceability for your entire product journey, from R&D to commercial

**Our Heritage**

Innovnano is affiliated to CUF, an established European chemical company with decades of invaluable expertise in the development and commercialisation of novel industrial technology, and expert materials processing.

### 5 reasons to choose Innovnano

1. Client satisfaction is our priority, from evaluation samples to tonnage shipments
2. Proprietary EDS manufacturing technology
3. Batch-to-batch quality and continuity assured
4. Our nanostructured powders enable lower sintering temperatures for improved performance and product value
5. Sustainable practices throughout the supply chain
Enabling next generation ceramic materials

Innovnano is a European manufacturer of ceramic powders for high performing structural components and coatings. A unique industrial scale manufacturing technology - Emulsion Detonation Synthesis (EDS) - ensures our powders enable our clients to consistently produce ceramics with excellent mechanical properties for the most demanding applications.

Abrasives | Structural parts | Thermal barrier coatings | Wear components

Expect more from your ceramics

Providing enhanced chemical, physical and mechanical properties for application-specific demands, our ceramic powders can improve the performance of your end-product ceramics:

- Improved hardness, flexural strength and fracture toughness
- Excellent tribological performance and resistance to chemical degradation, micro-cracking and thermal shock
- Low thermal conductivity
Expect more from your ceramics

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