

Technical Data Sheet

Yttria-Stabilized Zirconia (YSZ) Powder

Product ID: 3908400800PD001 - 3908400800PD003

Formular: $\text{Y}_2\text{O}_3\text{-ZrO}_2$

Molecular weight: 198.14 g/mol

CAS No.: 114168-16-0

EINECS No.: /

Color: White

Description: Our YSZ powder features fine particles with uniform distribution. Typical specifications include 3YSZ, 5YSZ, and 8YSZ, and other yttria ratios can be customized. It offers excellent phase stability and thermal stability.

Application: High-temperature thermal barrier coating materials (TBCs), solid oxide fuel cells (SOFC), electronic ceramic pastes, ceramic inks/inkjet 3D printing, ceramic composites, etc.

**Product
Image:**



1. Sizes

Product ID	Formular	Particle Size
3908400800PD001	$\text{Y}_2\text{O}_3\text{-ZrO}_2$ (3%mol Y_2O_3)	D50< 2 μm
3908400800PD002	$\text{Y}_2\text{O}_3\text{-ZrO}_2$ (5%mol Y_2O_3)	D50< 2 μm
3908400800PD003	$\text{Y}_2\text{O}_3\text{-ZrO}_2$ (8%mol Y_2O_3)	D50< 2 μm
3908400800PDDZ	$\text{Y}_2\text{O}_3\text{-ZrO}_2$ (other mol Y_2O_3)	Customized

2. Chemical compositions

Element Typical Type Value	Chemical Composition (wt%)					
	ZrO ₂ (+HfO ₂)	Y ₂ O ₃	Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	TiO ₂
3YSZ	94	5.2 ± 0.3	≤0.01	≤0.02	≤0.02	≤0.005
5YSZ	89.5	8.5 ± 0.3	≤0.01	≤0.02	≤0.02	≤0.005
8YSZ	86	13.5 ± 0.3	≤0.01	≤0.02	≤0.02	≤0.005

Note: The purity values shown are calculated by subtracting the sum of selected measured elemental impurities from 100%. These values do not represent the result of a full elemental analysis.

3. Packaging

Bottle/Bag.

Double vacuum packed.

4. Period of Validity

It is recommended to use this product within 12 months. If it is overdue, the product quality status should be re-evaluated.

5. Handling and Storage

When using, wear protective equipment to avoid inhalation of dust.

Keep dry and store in a sealed container to avoid moisture and prevent clumping.

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