

## Technical Data Sheet

# Silicon Nitride Powder

**Product ID:** 140700PD001 - 140700PD004

**Formular:**  $\text{Si}_3\text{N}_4$

**Molecular weight:** 140.28 g/mol

**CAS No.:** 12033-89-5

**EINECS No.:** 234-796-8

**Color:** Light gray

**Description:** Our silicon nitride powder typically has a purity of  $\geq 99\%$  and is available in both alpha and beta phases. We offer customizable micron-sized and nano-sized powders according to customer requirements. The product features high strength, high hardness, excellent thermal stability, and outstanding corrosion resistance.

**Application:** Structural ceramics, electronic ceramics, wear-resistant and sealing materials, thermal barrier coatings, and protective layers.

**Product  
Image:**



### 1. Sizes

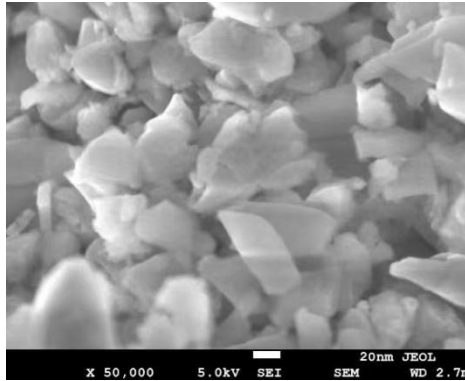
Product ID	Formular	Size	Crystal From
140700PD001	$\text{Si}_3\text{N}_4$ (99%)	100 - 200 nm	Alpha- $\text{Si}_3\text{N}_4$ > 90%
140700PD002	$\text{Si}_3\text{N}_4$ (99%)	D50 < 5 $\mu\text{m}$	Alpha- $\text{Si}_3\text{N}_4$ > 90%
140700PD003	$\text{Si}_3\text{N}_4$ (99%)	D50 < 3 $\mu\text{m}$	Alpha- $\text{Si}_3\text{N}_4$ > 92%
140700PD004	$\text{Si}_3\text{N}_4$ (99%)	D50 < 20 $\mu\text{m}$	Beta- $\text{Si}_3\text{N}_4$ > 92%
140700PDDZ	$\text{Si}_3\text{N}_4$ (99%)	Customized	Customized

### 2. Chemical compositions

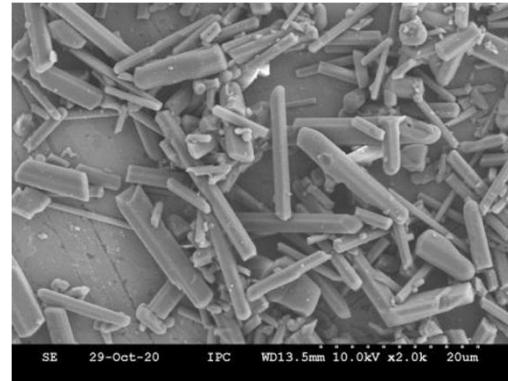
Element Typical Value Purity	Chemical Compositions (ppm)				
	Ca	Al	Fe	Cl	O
99%	$\leq 100$	$\leq 100$	$\leq 100$	$\leq 500$	$\leq 1.5 \text{ wt}\%$

*Note: The purity values (metal basis, excluding gaseous elements (C, N, H, O)) 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. SEM



Alpha-Si<sub>3</sub>N<sub>4</sub>



Beta-Si<sub>3</sub>N<sub>4</sub>

### 4. Packaging

Bottled/Bag.

Double vacuum packed.

Customizable packaging is available upon request.

### 5. 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 (e.g., mask, goggles, and gloves) and operate in a well-ventilated area to avoid inhalation of dust or direct skin contact.

Store in a tightly sealed container in a cool, dry, and dark place to prevent moisture absorption and oxidation.

### Contact Us

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