

STARCERAM® N RTP GRADES

2023.01.24

SPECIFICATIONS

- ▶ Chemical formula: $\alpha\text{-Si}_3\text{N}_4$
- ▶ Chemical name: Silicon nitride
- ▶ Description of product: Formulation of silicon nitride and processing additives for pressing, green machining and sintering
- ▶ Colour: Light grey
- ▶ Grades: Grade M, qualified for a machinable processing after isostatic pressing, Grade P, preferred for dry pressing

CHEMICAL CHARACTERISTICS (TYP.)^{1,2}

		Grade M	Grade P
$\alpha\text{-Si}_3\text{N}_4$	[%]	> 78	> 78
Ca	[%]	< 0.02	< 0.02
Fe	[%]	< 0.1	< 0.1
C	[%]	< 0.2	< 0.2
O	[%]	< 5.8	< 5.8

¹ Debindered granulate

² Information on testing methods on request

PHYSICAL CHARACTERISTICS (TYP.)

		Grade M	Grade P
Specific surface area ³	[m ² /g]	14	14
Granule size distribution ⁴			
D50 Vol-%	[μm]	35	45
D90 Vol-%	[μm]	60	70
Apparent density ⁶	[g/cm ³]	> 0.8	> 0.8
Green density ⁵	[g/cm ³]	> 1.9	> 1.8
Sintered density ⁷	[g/cm ³]	> 3.2	> 3.2

³ Beckman Coulter SA 3100, on debindered granulate

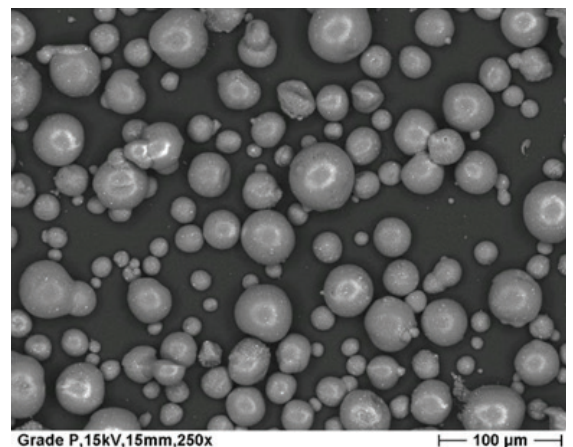
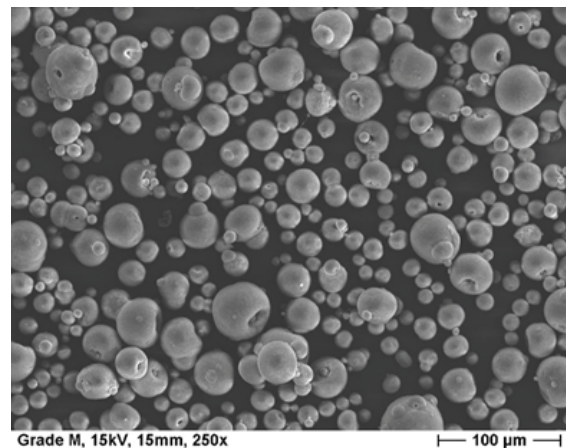
⁴ Beckmann Coulter LS 13 320, laser light diffraction on dry dispersion

⁵ 1,600 bar

⁶ DIN-EN 725-9

⁷ N2 10 bar

SEM PHOTOMICROGRAPH



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PACKAGING

- ▶ 25 kg steel drums with polyethylene inlet (30 l)
- ▶ 12 drums on euro-pallet (800 x 1,200) = 1 packaging unit of 300 kg

STORAGE & HANDLING

StarCeram® N rtp, as a complex system of organic and inorganic ingredients, is made for early usage. The shelf-life for unrestricted processability is dependent on the storage conditions and the specific application it is used for. Storage and handling are subject to the rules and regulations in the country of use. Store at room temperature in a sealed closed, original container.

HAZARDS IDENTIFICATION IN ADVERTISING (REGULATION (EC) NO 1272/2008 ARTICLE 48)

none

DOCUMENTATION

An inspection document in accordance with EN 10204 is supplied with every shipment.

The information contained herein, and in particular the recommendations relating to the application and end-use of our products, are given in good faith based on our current knowledge and experience. The information do not constitute a guarantee with respect to properties of the products. Since we have no control over the application modalities, no guarantee is granted with respect to merchantability or fitness for a particular purpose. It is your sole responsibility to validate the suitability and completeness for your own use. We therefore recommend to always perform a test according to specific circumstances. Any liability in respect of the information in this data sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in case of death or personal injury, intent or gross negligence and under any applicable mandatory product liability law. Technical data are subject to change without notice. The newest version of the technical data sheet replaces all preceding versions. The trademarks, trade names, logos and other designations of origin contained in this data sheet are registered and unregistered intellectual property rights of KYOCERA Fineceramics Europe GmbH. It is forbidden to copy or use information from this data sheet in whole or in part, especially in dealings with third parties.