

ALUMINUM NITRIDE GRADE A, GRADE B, GRADE C

Chemical Formula	AlN
Chemical Name	Aluminum Nitride
Description of Product	Fine particle size, deagglomerated, high purity
HS Number	28500020
Grades Available	Product Designation Aluminum Nitride Grade A Aluminum Nitride Grade B Aluminum Nitride Grade C

Chemical Characteristics

(Mass fraction in % [cg/g]; ppm [μ g/g])

	Grade A			Grade B			Grade C		
N	min.	32.5	%	min.	31.5	%	min.	31.5	%
C	max.	0.1	%	max.	0.1	%	max.	0.1	%
O	max.	1.0	%	max.	1.2	%	max.	2.0	%
Fe	max.	0.005	%	max.	0.005	%	max.	0.005	%

Crystallographic Phases

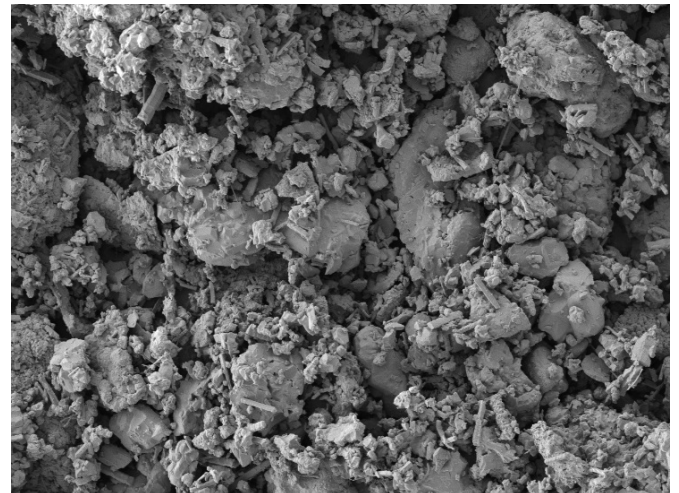
Crystal Structure	Hexagonal Single Phase	Hexagonal Single Phase	Hexagonal Single Phase
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Physical Characteristics

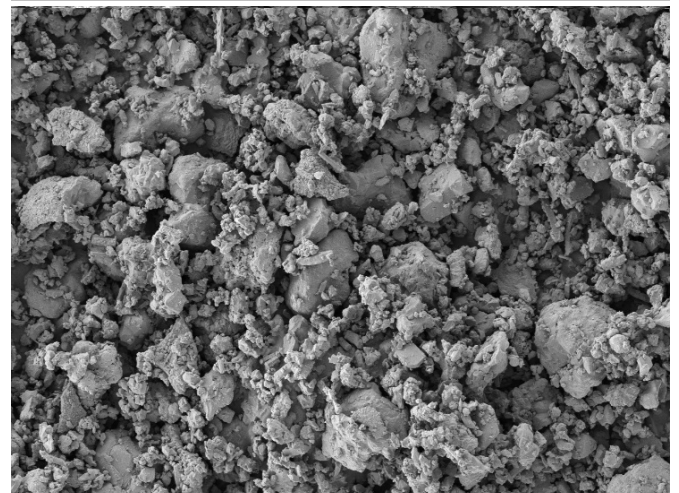
Specific Surface Area ¹⁾	\leq	2.0	m ² /g	1.2 - 2.8	m ² /g	1.8 - 3.8	m ² /g
Particle Size Distribution ²⁾							
D 10 %	0.4 - 1.4	μ m	0.3 - 0.6	μ m	0.2 - 0.4	μ m	
D 50 %	6 - 10	μ m	2.0 - 4.5	μ m	0.8 - 2.0	μ m	
D 90 %	17 - 35	μ m	6.0 - 9.5	μ m	3.0 - 6.0	μ m	

1) TriStar by BET per ASTM D 3663, 2) MICROTRAC by Laser Light Diffraction per ASTM C 1070.

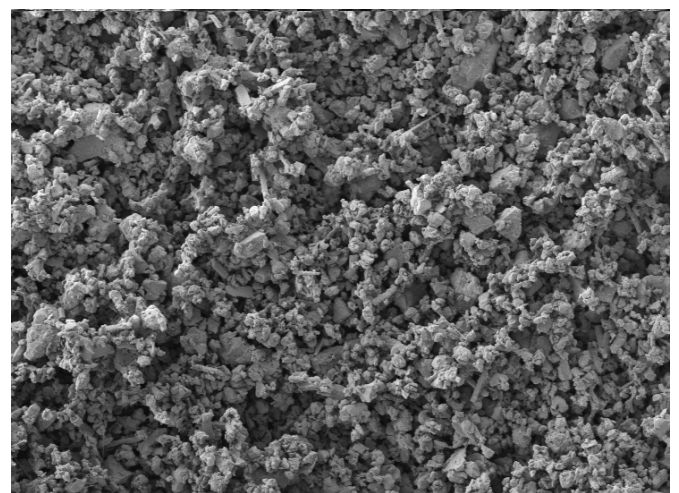
SEM picture³⁾
AlN Grade A



SEM picture³⁾
AlN Grade B



SEM picture³⁾
AlN Grade C



3) Secondary Electron Image (SEI).

Packaging	Grade A and Grade B: 50 kg in steel drums (60 l) with polyethylene inlet. 9 drums on one pallet CP 3 (1140 x 1140 mm) = 1 packaging unit of 450 kg. Grade C: 30 kg in steel drums (60 l) with polyethylene inlet. 9 drums on one pallet CP 3 (1140 x 1140 mm) = 1 packaging unit of 270 kg. Other packaging unit/quantity on request.
Storage and Handling	Storage and handling are subject to the rules and regulations in the country of use. Store in a closed container.
Hazards identification in Advertising (REGULATION (EC) No 1272/2008 Article 48)	Specific target organ toxicity – repeated exposure Category 1 Chronic aquatic toxicity Category 1.
Documentation	An inspection document in accordance with EN 10204 is supplied with every shipment.

Höganäs Germany GmbH

Im Schleeke 78-91
38642 Goslar/Germany

Säckinger Straße 51
79725 Laufenburg/Germany

Direct contact: advanced-ceramics@hoganas.com

<https://www.hoganas.com/en/contact/>

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