

ALUMINUM NITRIDE GRADE AT, GRADE BT

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|-------------------------------|---|
| Chemical Formula | AlN |
| Chemical Name | Aluminum Nitride |
| Description of Product | Grade AT: Agglomerated Powder, broad particle size distribution Grade BT: Fine particle size, deagglomerated |
| HS Number | 28500020 |
| Grades Available | Product Designation Aluminum Nitride Grade AT Aluminum Nitride Grade BT |

Chemical Characteristics

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

| | Grade AT | | Grade BT | |
|----|----------|--------|----------|--------|
| N | min. | 32.0 % | min. | 32.0 % |
| C | max. | 0.15 % | max. | 0.15 % |
| O | max. | 1.3 % | max. | 1.5 % |
| Fe | max. | 0.05 % | max. | 0.05 % |

Crystallographic Phases

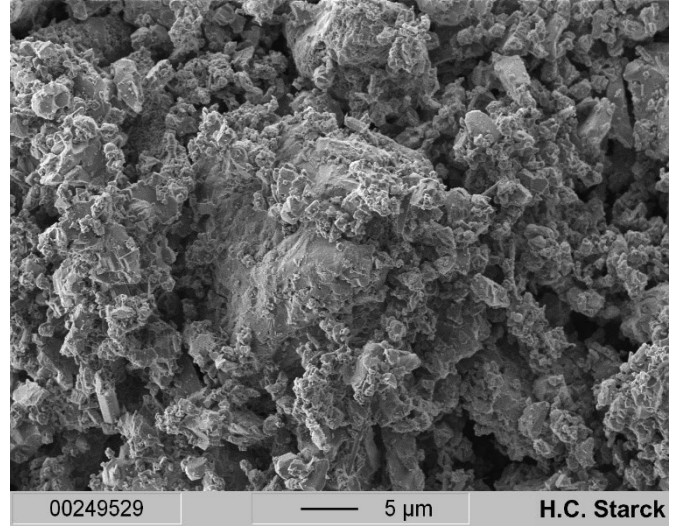
| | | |
|-------------------|---------------------------|---------------------------|
| Crystal Structure | Hexagonal Single Phase | Hexagonal Single Phase |
|-------------------|---------------------------|---------------------------|

Physical Characteristics

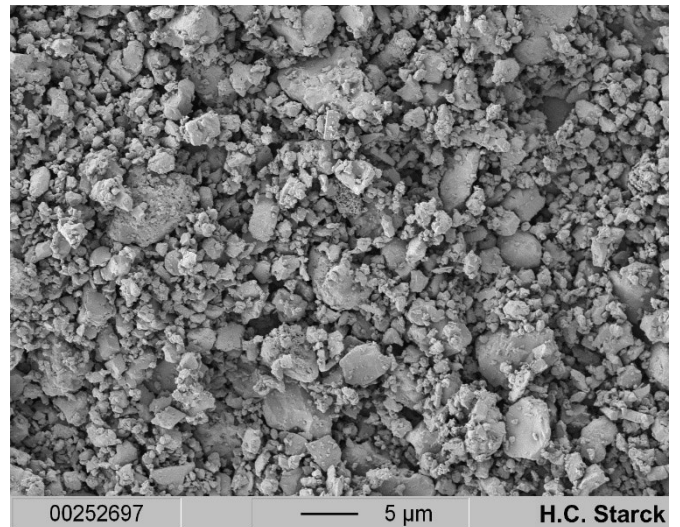
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|--|------------------------------|-----------------------------|
| Specific Surface Area ¹⁾ | \leq 2.3 m ² /g | 1.8 - 3.8 m ² /g |
| Particle Size Distribution ²⁾ | | |
| D 10 % | 0.4 - 1.4 μ m | 0.2 - 0.6 μ m |
| D 50 % | 6 - 10 μ m | 1 - 3 μ m |
| D 90 % | 17 - 35 μ m | 5 - 10 μ m |

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

SEM picture³⁾
AIN Grade AT



SEM picture³⁾
AIN Grade BT



| | |
|--|--|
| Packaging | 50 kg in steel drums with polyethylene inlet (60 l). 9 drums on one pallet CP 3 (1140 x 1140 mm) = 1 packaging unit of 450 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. |

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