ALUMINUM NITRIDE  GRADE A, GRADE B, GRADE C

Chemical Formula  AIN
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 [µg/g])

<table>
<thead>
<tr>
<th></th>
<th>Grade A</th>
<th>Grade B</th>
<th>Grade C</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>min. 32.5 %</td>
<td>min. 31.5 %</td>
<td>min. 31.5 %</td>
</tr>
<tr>
<td>C</td>
<td>max. 0.1 %</td>
<td>max. 0.1 %</td>
<td>max. 0.1 %</td>
</tr>
<tr>
<td>O</td>
<td>max. 1.0 %</td>
<td>max. 1.2 %</td>
<td>max. 2.0 %</td>
</tr>
<tr>
<td>Fe</td>
<td>max. 0.005 %</td>
<td>max. 0.005 %</td>
<td>max. 0.005 %</td>
</tr>
</tbody>
</table>

Crystallographic Phases
Crystal Structure  Hexagonal
                  Single Phase

Physical Characteristics
Specific Surface Area\(^1\)  ≤ 2.0 m\(^2\)/g
D 10 %  0.4 - 1.4 µm
D 50 %  7 - 11 µm
D 90 %  17 - 32 µm

Particle Size Distribution\(^2\)
D 10 %  0.3 - 0.6 µm
D 50 %  2.0 - 4.5 µm
D 90 %  6.0 - 9.5 µm

1) TriStar by BET per ASTM D 3663, 2) MICROTRAC by Laser Light Diffraction per ASTM C 1070.
3) Secondary Electron Image (SEI).

SEM picture
AlN Grade A

SEM picture
AlN Grade B

SEM picture
AlN Grade C
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.

Hazard 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

Phone +49 5321 751-53753

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

The conditions of your use and application of our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis at least must include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by Höganäs Germany GmbH. All information is given without warranty or guarantee. It is expressly understood and agreed that the customer assumes and hereby expressly releases Höganäs Germany GmbH from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind Höganäs Germany GmbH. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent. In case of order please refer to issue number of the respective product data sheet. All deliveries are based on the latest issue of the product data sheet and the latest version of our General Conditions of Sale and Delivery.