Höganäs

Number	PD-5123
Issue	5-31.07.2007

TITANIUM DIBORIDE GRADE D, GRADE SE, GRADE F

Chemical Formula	TiB_2
Chemical Name	Titanium Diboride
Description of Product	Greyish powder
HS Number	28500090
Grades Available	**Product Designation** Titanium Diboride Grade D[e)] Titanium Diboride Grade SE[e)] Titanium Diboride Grade F[e)]

Chemical Characteristics
(Mass fraction in % [cg/g]; ppm [µg/g])

	Grade D	Grade SE	Grade F
B	min. 30.0 %	30.0 %	min. 29.5 %
C	max. 0.5 %	0.5 %	max. 0.4 %
O	max. 1.1 %	1.5 %	max. 2.5 %
N	max. 0.6 %	0.7 %	max. 0.5 %
Fe	max. 0.1 %	0.3 %	max. 0.1 %

Crystallographic Phases

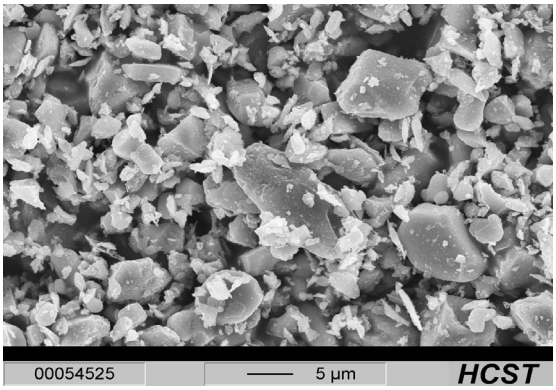
Crystal Structure	Hexagonal	Hexagonal	Hexagonal

Physical Characteristics

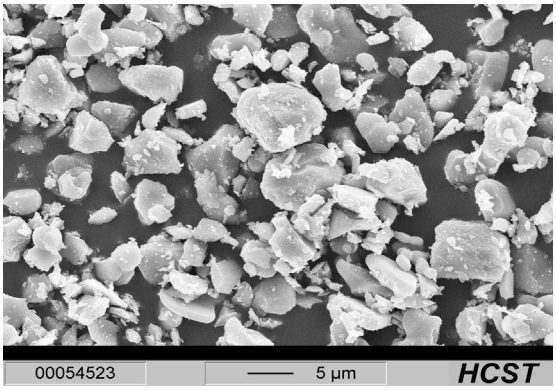
Particle Size Distribution[1)]			
D 10 %	0.7 - 2.0 µm	0.7 - 2.0 µm	0.5 - 1.2 µm
D 50 %	3.5 - 6.0 µm	3.5 - 6.0 µm	2.5 - 3.5 µm
D 90 %	6.5 - 10.0 µm	6.5 - 10.0 µm	4.0 - 7.0 µm

1) MICROTRAC by Laser Light Diffraction per ASTM C 1070. e) These products are under export control.

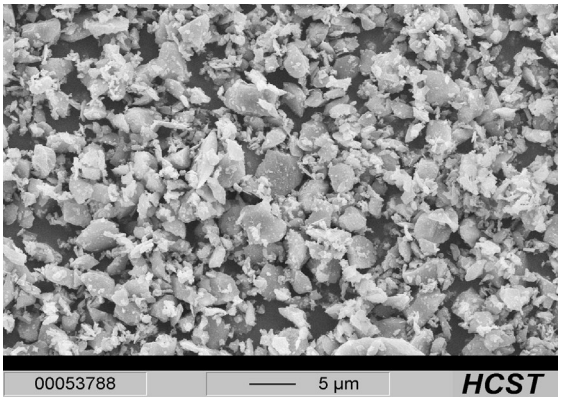
SEM Photomicrograph[2)]
scale see photograph,
TiB_2 Grade D



SEM Photomicrograph[2)]
scale see photograph,
TiB_2 Grade SE



SEM Photomicrograph[2)]
scale see photograph,
TiB2 Grade F



2) Secondary Electron Image (SEI)

Höganäs

Number	PD-5123
Issue	5-31.07.2007

Packaging

50 kg in 60 l steel drums with polyethylene inlet.
9 drums on one pallet CP 3 (1140 x 1140 mm) = 1 packaging unit of 450 kg or
6 drums on one pallet CP 5 (760 x 1140 mm) = 1 packaging unit of 300 kg.
Grade F:
25 kg in 30 l steel drums with polyethylene inlet = 1 packaging unit of 100 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.
To prevent quality problems, this boride material should be stored under inert gas. Titanium Diboride (TiB2) and other boride compounds are susceptible to oxidation over time as they are exposed to the air. Opening the product packaging in the presence of moisture can eventually result in oxygen content increasing above the material's measured values.

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.

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/