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3M Advanced Materials Division

3M™ Boron Nitride Cooling Filler

Platelets 003

Introduction

- Platelets with mean size of 3 µm
- Typical top cut below 100 µm

Typical Applications (non-limiting):

- Used with thin films <25 µm and fibers
- Ideal for fine channels and windings

Compatible Matrix Materials (non-limiting):

- Thermoplastics

Typical Physical Properties

(Not for specification purposes)

O	≤1.0%
C	≤0.06%
B_2O_3	<0.1%
BN	≥98.0%

BN content is calculated as (100% minus B_2O_3, O, C, Si, Al, Fe, Ca, without loss on drying)

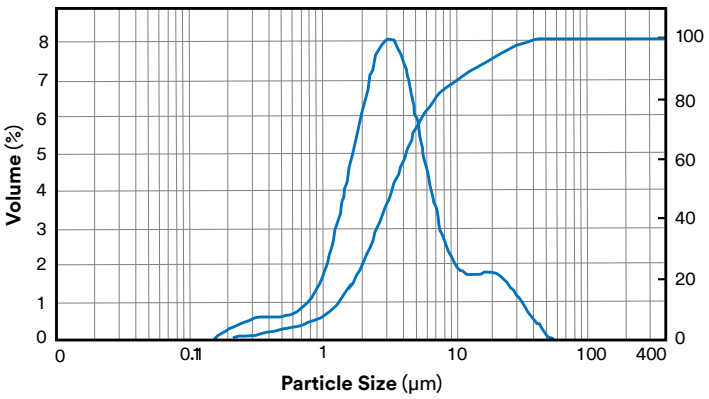
Characteristics

(Not for specification purposes)

3M Boron Nitride Cooling Filler Platelets 003 7010253582	Minimum	Maximum
Particle Size Distribution d(0.1) (µm)	1	2
Particle Size Distribution d(0.5) (µm)	2	5
Particle Size Distribution d(0.9) (µm)	8.5	22.5
(Untapped) bulk density (Scott) (g/cm³)	n.a.	0.15
Specific Surface Area (m²/g)	11	18

Bulk density determined according to ISO 23145-2 (DIN density)
Particle size distribution measured by laser light scattering (Mastersizer 2000, ethanol, 30s internal Ultrasonic)
For calculation purpose: Density of bulk hBN 2.25 g/cm³

Particle Size Distribution



Refer to the 3M Boron Nitride Cooling Filler Safety Data Sheet for safety information.

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