

3M Advanced Materials Division

# 3M™ Boron Nitride Cooling Filler Flakes 500-3

## Introduction

- Flakes with mean flakes size 460 μm made of 3 μm primary platelets

## Typical Applications (non-limiting):

- For injection molded and potting resin parts with high through-plane thermal conductivity
- Boost thermal conductivity of compounds as secondary filler

## Compatible Matrix Materials (non-limiting):

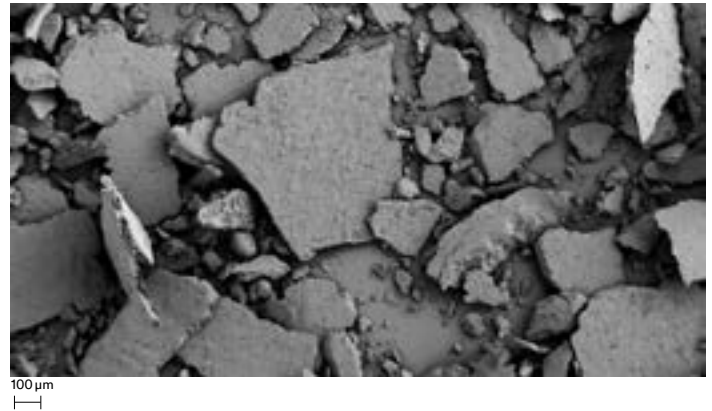
- Thermoplastics (preferentially as booster)
- Thermosets (preferentially as booster)
- Elastomers (preferentially as booster)

## Typical Physical Properties

(Not for specification purposes)

O	<0.7%
C	<0.2%
B <sub>2</sub> O <sub>3</sub>	<0.1%
BN	>98.5%

BN content is calculated as (100% minus B<sub>2</sub>O<sub>3</sub>, O, C, Si, Al, Fe, Ca, without loss on drying)



## Characteristics

(Not for specification purposes)

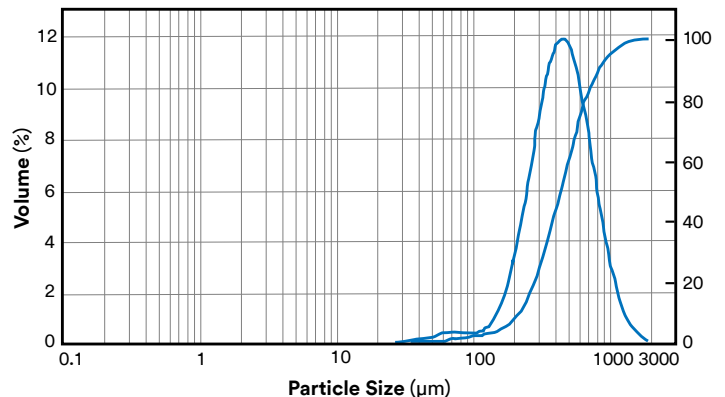
3M Boron Nitride Cooling Filler Flakes 500-3 7010235572	Minimum	Maximum
Particle Size Distribution d(0.1) (μm)	140	260
Particle Size Distribution d(0.5) (μm)	300	530
(Untapped) bulk density (DIN) (g/cm <sup>3</sup> )	0.25	0.5
Specific Surface Area (m <sup>2</sup> /g)	2.5	7.5

Bulk density determined according to ISO 23145-2 (DIN density)

Particle size distribution measured by laser light scattering (Mastersizer 2000, dry, 0.1 bar)

For calculation purpose: Density of bulk hBN 2.25 g/cm<sup>3</sup>

## Particle Size Distribution



Refer to the [3M Boron Nitride Cooling Filler Safety Data Sheet](#) for safety information.

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