







## HeBoFill®

## Boron Nitride Fillers for Polymers

HeBoFill® Grade	501	511	521	531	541
agglomerate size D50 [µm]	--	10	120 - 150	55 - 65	--
particle size D50 [µm]	45	0.4	10	--	7 - 15
max. oxygen [%]	0.1	1.2	0.3	0.4	0.3
max. boron oxide [%]	0.05	0.1	0.1	0.1	0.1
max. carbon [%]	0.03	0.1	0.03	0.05	0.03
specific surface area [m <sup>2</sup> /g]	0.6	14	3.3	5.5	3 - 5
bulk density (not compacted) [g/cm <sup>3</sup> ]	0.64	0.5	0.7	0.4	0.35
<b>typical areas of application</b>	Grade 510 is a large single-crystal powder in the typical hexagonal platelet structure and therefore gives it a high thermal conductivity within the particle. It is best suited for use in applications where heat dissipation from a localized source to a large surface is desired.	Grade 511 is a fine hexagonal crystalline powder designed to offer an economical way to make an ideal substitute for aluminium nitride, alumina, and fused silica in applications where improved heat transfer properties are needed.	Grade 521 consists of medium-density agglomerates of hexagonal platelets. The agglomerated nature of this powder grade gives the ability to use high loadings in polymer matrices while maintaining a workable viscosity in the composite. The final agglomerate size in the polymer composite is depending on the individual compounding technology.	Grade 531 consists of spherical agglomerates of boron nitride crystals, resulting in more isotropic properties versus typical boron nitride particles. This can result in increases in thermal conductivity at moderate loading levels in polymer composites.	Grade 541 is a highly crystalline, high-purity single crystal grade with low surface area. The narrow particle size distribution makes this grade excellent for thin film or sheet applications.
heat conductive filler					
tribology (solid lubricant)					

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