

CoolFlow* Boron Nitride Powder

CF500 and CF600

Momentive Performance Materials produces over 80 standard and custom grades of boron nitride (BN) powders to meet a wide range of application requirements, and has over 50 years of expertise in the synthesis and refinement of BN powders.

Momentive's CF500 Boron Nitride powder is a highly crystalline, high purity single crystal grade and is flexible enough to fulfill a wide range of advanced material applications. Its mean particle size is 12 μm , which makes this grade an excellent candidate to consider for thin film applications.

Momentive's CF600 Boron Nitride powder is a highly crystalline, high purity mix of platelets and agglomerates with particles less than 250 μm . The mixture can improve flow compared to platelets in plastic extrusion and filled silicones. CF600's agglomerates can also improve through plane thermal conductivity over platelet grades, assuming agglomerates are maintained during processing.

Potential Applications

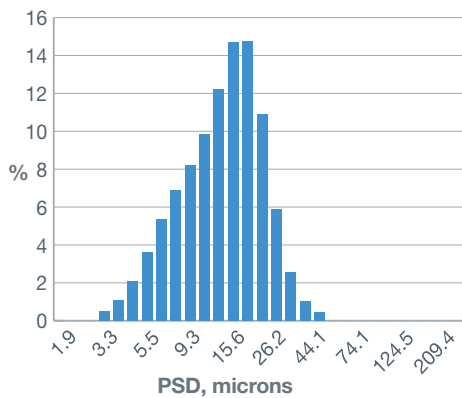
CoolFlow BN powder grades can be considered for use as fillers to enhance thermal conductivity while providing electrical isolation. Potential end-use applications include:

- LED lighting fixtures
- Consumer electronic devices
- Aerospace, automotive cooling systems
- Motor and battery housings
- Temperature sensors
- Heat exchangers

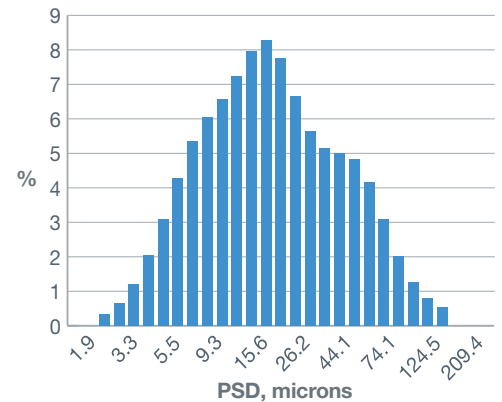
Key Features & Typical Benefits

- Thermally conductive
- Electrically insulating
- Lubricious
- Low density
- Non-wetting
- High temperature stability
- Chemically stable

CF500



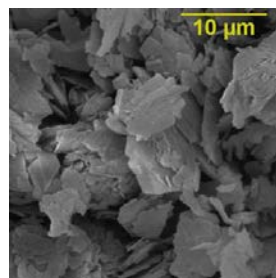
CF600



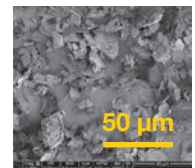
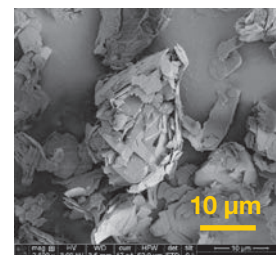
Typical Physical Properties ¹	CF500	CF600
Structure	Single crystal platelet	Mixed platelets, agglomerates
Mean Particle Size (μm)	12	16
D10/D90 (μm)	5/20	6/55
Surface Area (m^2/g)	7.0	8.0
Tap Density (g/cm^3)	0.3	0.47
Oxygen (wt.%)	0.5	0.4
Carbon (wt.%)	0.06	0.04
Soluble Borates (wt.%)	0.2	0.15

¹ Typical data are average and actual results may vary. Typical data shall not be used as product specifications.

CF500



CF600



Customer Service Centers

North America

cs-na.ceramics@momentive.com

T +1 440 878 5700
F +1 440 878 5928

Europe

cs-eur.ceramics@momentive.com

T +49 4152 9380
F +49 4152 938 136

Pacific

cs-asia.ceramics@momentive.com

T +81 3 5114 3769
F +81 3 5114 3777

PATENT STATUS: Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

PRODUCT SAFETY, HANDLING AND STORAGE: Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at www.momentive.com or, upon request, from any Momentive Performance Materials (MPM) representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

LIMITATIONS: Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

EMERGENCY SERVICE:

Momentive Performance Materials maintains an around-the-clock emergency service for its products.

LOCATION	EMERGENCY SERVICE PROVIDER	EMERGENCY CONTACT NUMBER
Mainland U.S., Puerto Rico	CHEMTREC	1.800.424.9300
Alaska, Hawaii	CHEMTREC	1.800.424.9300
Canada,	CHEMTREC	1.800.424.9300
Europe, Israel	NCEC	+44(0) 1235239670
Middle East	NCEC	+44(0) 1235239671
Asia/Pacific (except China)	NCEC	+44(0) 1235239670
China	NCEC	+86.10.5100.3039
Latin America (except Brazil)	NCEC	+44(0) 1235239670
Brazil	SOS Cotec	08000111767 or 08007071767
All other locations world wide	NCEC	+44(0) 1235239670
At sea	Radio U.S. Coast Guard in US waters NCEC in International waters	+44(0) 1235239670

For Health related calls, contact Momentive Performance Materials at +1.518.233.2500 (English only).

DO NOT WAIT. Phone if in doubt. You will be referred to a specialist for advice.

DISCLAIMER: THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC., MOMENTIVE PERFORMANCE MATERIALS USA INC., MOMENTIVE PERFORMANCE MATERIALS ASIA PACIFIC PTE. LTD., MOMENTIVE PERFORMANCE MATERIALS WORLDWIDE INC., MOMENTIVE PERFORMANCE MATERIALS GmbH, THEIR SUBSIDIARIES AND AFFILIATES DOING BUSINESS IN LOCAL JURISDICTIONS (collectively "SUPPLIERS"), ARE SOLD BY THE RESPECTIVE LEGAL ENTITY OF THE SUPPLIER SUBJECT TO SUPPLIERS' STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIERS MAKE NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING SUPPLIERS' PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. AFOREMENTIONED EXCLUSIONS OR LIMITATION OF LIABILITY ARE NOT APPLICABLE TO THE EXTENT THAT THE END-USE CONDITIONS AND/OR INCORPORATION CONDITIONS CORRESPOND TO THE RECOMMENDED CONDITIONS OF USE AND/OR OF INCORPORATION AS DESCRIBED BY SUPPLIER IN ITS PRODUCT DATA SHEET AND/OR PRODUCT SPECIFICATIONS. EXCEPT AS PROVIDED IN SUPPLIERS' STANDARD CONDITIONS OF SALE, SUPPLIERS AND THEIR REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Suppliers' materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Suppliers' products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Suppliers' Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Suppliers. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Suppliers or any of its subsidiaries or affiliates covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

*CoolFlow is a trademark of Momentive Performance Materials Inc.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.



22557 Lunn Road
Strongsville, OH 44149

T +1 440 878 5700
F +1 440 878 5928
momentive.com