



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549-4631

September 3, 2009

Mr. Michael C. Hasychak
Vice President, Treasurer, and Secretary
Brush Engineered Materials Inc.
6070 Parkland Boulevard
Mayfield Heights, OH 44124

**Re: Brush Engineered Materials Inc.
Registration Statement on Form S-3
Filed August 11, 2009
File No. 333-161260**

Dear Mr. Hasychak:

We have limited our review of your filing to those issues that we have addressed in our comments. Where indicated, we think that you should revise your document in response to these comments. If you disagree, we will consider your explanation why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us information so that we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions that you may have about comments or any other aspect of our review. You may call us at the telephone numbers listed at the end of this letter.

Registration Statement's Facing Page

1. We note the statement in footnotes 10 and 11 to the calculation of registration fee table that "[t]he securities being registered hereunder may be sold separately or as units with other securities registered hereunder." However, these units are not listed in the registration fee table or the prospectus cover page. If you are registering units, please list them accordingly, provide a description of the units you may offer pursuant to Item

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202(d) of Regulation S-K, and arrange for counsel to provide an opinion on the legality of the units.

Exhibit Index

2. Please revise the exhibit list to include a reference to the certificate of designation for the Series A junior participating preferred stock.
3. The reference in the exhibit index to the form of debt securities indenture as exhibit 4.6 is inconsistent with the exhibit number of 4.5 on the face of the exhibit. Please refile the exhibit with the correct exhibit number on its face.

Closing

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us marked courtesy copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after review of your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosures in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information that investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosures, they are responsible for the adequacy and accuracy of the disclosures that they have made.

Notwithstanding our comments, when the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter at the time of the request, acknowledging that:

- Should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing.
- The action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing.
- The company may not assert staff comments and the declaration of effectiveness

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as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Also, please be advised that the Division of Enforcement has access to all information that you provide to the staff of the Division of Corporation Finance in connection with our review of your filing or in response to our comments on your filing.

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statements. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may direct questions on comments and disclosure issues to Edward M. Kelly, Senior Counsel, at (202) 551-3728 or me at (202) 551-3397.

Very truly yours,

Jay E. Ingram
Legal Branch Chief

cc: Michael J. Solecki, Esq.
Jones Day
901 Lakeside Avenue
Cleveland, OH 44114
By facsimile to (216) 579-0212