

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

**FORM 8-A
(Amendment No. 2)**

**FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES
PURSUANT TO SECTION 12(b) OR (g) OF THE
SECURITIES EXCHANGE ACT OF 1934**

Brush Engineered Materials Inc.

(Exact Name of Registrant as Specified in its Charter)

Ohio
(State of Incorporation or Organization)

34-1919973
(I.R.S. Employer
Identification No.)

17876 St. Clair Avenue, Cleveland, Ohio
(Address of Principal Executive Offices)

44110
(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of Each Class
to be so Registered

Rights to Purchase Series A Junior Participating Preferred
Stock, without par value

Name of Each Exchange on Which
Each Class is to be Registered

New York Stock Exchange

Securities Act registration statement file number to which this form relates:

333-95917
(If applicable)

If this form relates to the registration of a class of securities
pursuant to Section 12(b) of the Exchange Act and is
effective pursuant to General Instruction A.(c), please check
the following box. ☒

If this form relates to the registration of a class of securities
pursuant to Section 12(g) of the Exchange Act and is
effective Pursuant to General Instruction A.(d), please check
the following box. ☐

Securities to be registered pursuant to Section 12(g) of the Act:

N/A
(Title of class)

Item 1. Description of Registrant's Securities to be Registered

On July 30, 2008, the Directors of Brush Engineered Materials Inc. (the "Company") approved Amendment No. 2, dated as of July 30, 2008 (the "Amendment"), to the Rights Agreement, dated as of May 10, 2000 (the "Rights Agreement") and amended December 7, 2004, between the Company and LaSalle Bank, N.A., as successor rights agent ("LaSalle Bank"). The Amendment removed LaSalle Bank as rights agent and appointed Wells Fargo Bank, N.A. as successor rights agent.

The foregoing description of the Amendment is qualified in its entirety by reference to the full text of the Amendment, a copy of which has been filed as an exhibit hereto and incorporated herein by this reference. Copies of the Rights Agreement are available free of charge from the Company.

Item 2. Exhibits

<u>Number</u>	<u>Description</u>
4.1	Amendment No. 2, dated as of July 30, 2008 to the Rights Agreement, dated as of May 10, 2000, as amended December 7, 2004, between the Company, LaSalle Bank N.A., as former successor rights agent and Wells Fargo Bank, N.A. as successor rights agent.

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

BRUSH ENGINEERED MATERIALS INC.

By: /s/ Michael C. Hasychak

Name: Michael C. Hasychak

Title: Vice President, Treasurer and Secretary

Date: July 31, 2008

EXHIBIT INDEX

<u>Number</u>	<u>Description</u>
4.1	Amendment No. 2, dated as of July 30, 2008, to the Rights Agreement, dated as of May 10, 2000, as amended December 7, 2008, between the Company, LaSalle Bank, N.A. as former successor rights agent and Wells Fargo Bank N.A., as successor rights agent.

July 30, 2008

LaSalle Bank National Association
Corporate Trust Administration
135 S. LaSalle St.
Chicago, Illinois 60603

Attn: Mr. Gregory Malatia

Wells Fargo Bank, National Association
Shareowner Services
161 North Concord Exchange
South St. Paul, MN 55075

Re: Notice of Removal of Rights Agent and Appointment of Successor Rights Agent and
Amendment No. 2 to the Rights Agreement (this "Notice and Amendment")

Ladies and Gentlemen:

1. Pursuant to Section 21 of the Rights Agreement, dated as of May 10, 2000 and amended December 7, 2004 (the "Rights Agreement") between Brush Engineered Materials Inc. (the "Company") and LaSalle Bank N.A., as successor rights agent (the "Rights Agent"), the Company hereby provides notice of the Rights Agent's removal as rights agent pursuant to the Rights Agreement, which removal shall be effective as of August 11, 2008, and the Rights Agent hereby accepts and agrees to such removal, effective as of August 11, 2008, and waives the time periods, notice and other requirements for removal of the Rights Agent pursuant to the Rights Agreement by its countersignature to this Amendment No. 2 to Rights Agreement in the space provided below.

2. Pursuant to Section 21 of the Rights Agreement, the Company hereby appoints Wells Fargo Bank, National Association ("Wells Fargo") as successor to the Rights Agent, as rights agent to act as agent for the Company and the holders of Rights (as defined in the Rights Agreement) (who, in accordance with Section 3 of the Rights Agreement will also be, prior to the Distribution Date (as defined in the Rights Agreement) the holders of Common Shares (as defined in the Rights Agreement)) in accordance with the terms and conditions of the Rights Agreement, which appointment will be effective as of August 11, 2008, and Wells Fargo hereby accepts such appointment, also effective as of August 11, 2008 and agrees that it complies with the requirements of the New York Stock Exchange governing transfer agents and registrars, by its countersignature to this Amendment No. 2 to Rights Agreement in the space provided below.

3. Pursuant to Section 27 of the Rights Agreement, the Company, by resolution adopted by its Directors, and the Rights Agent hereby amend the Rights Agreement as follows, and Wells Fargo agrees to be bound thereby:

1. The Company and Wells Fargo agree that the address and contact information set forth above for Wells Fargo will be the information for Wells Fargo for purposes of Section 26(b) of the Rights Agreement.

2. The Rights Agreement shall not otherwise be supplemented or amended by virtue of this Notice and Amendment, but shall remain in full force and effect.

3. This Notice and Amendment will be deemed to be a contract made under the internal substantive laws of the State of Ohio and for all purposes will be governed by and construed in accordance with the internal substantive laws of such State applicable to contracts to be made and performed entirely within such State.

4. This Notice and Amendment may be executed in any number of counterparts and each of such counterparts will for all purposes be deemed to be an original, and all such counterparts will together constitute but one and the same instrument.

5. Exhibits B and C to the Rights Agreement shall be deemed amended in a manner consistent with this Notice and Amendment.

Very truly yours,

BRUSH ENGINEERED MATERIALS INC.

By: /s/ Michael C. Hasychak
Name: Michael C. Hasychak
Title: Vice President, Treasurer & Secretary

Accepted and agreed to as of the date first written above:

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as successor Rights Agent

By: /s/ Tracie Balach
Name: Tracie Balach
Title: Account Manager

Accepted and agreed to as of the date first written above:

LASALLE BANK NATIONAL ASSOCIATION

By: /s/ Gregory Malatia
Name: Gregory Malatia
Title: Vice President, Shareholder Services