

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

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

MATERION CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Ohio
(State or Other Jurisdiction
of Incorporation or Organization)

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

6070 Parkland Boulevard
Mayfield Heights, Ohio 44124
(Address of Principal Executive Offices) (Zip Code)

Materion Corporation 2006 Stock Incentive Plan
(As Amended and Restated as of May 4, 2011)
(Full Title of the Plan)

Michael C. Hasychak
Vice President, Secretary and Treasurer
Materion Corporation
6070 Parkland Boulevard
Mayfield Heights, Ohio 44125
(Name and Address of Agent for Service)

(216) 486-4200
(Telephone Number, including area code, of Agent For Service)

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐
(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered ⁽¹⁾	Proposed Maximum Offering Price Per Share ⁽²⁾	Proposed Maximum Aggregate Offering Price ⁽²⁾	Amount of Registration Fee
Common Shares, without par value	800,000	\$41.60	\$33,280,000	\$3,863.81

- (1) Pursuant to Rule 416 of the Securities Act of 1933 (the "Securities Act"), this registration statement also covers such additional Common Shares, without par value (the "Common Shares"), of Materion Corporation (the "Registrant") as may become issuable pursuant to the anti-dilution provisions of the Registrant's 2006 Stock Incentive Plan (As Amended and Restated as of May 4, 2011) (the "Plan").
- (2) Estimated solely for calculating the amount of the registration fee, pursuant to paragraphs (c) and (h) of Rule 457 of the General Rules and Regulations under the Securities Act, on the basis of the average of the high and low sale prices of such securities on the New York Stock Exchange on May 2, 2011, within five business days prior to filing.

PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Pursuant to General Instruction E to Form S-8, the contents of Registration Statement No. 333-133429 on Form S-8, as filed by the Registrant (then named Brush Engineered Materials Inc.) with the Securities and Exchange Commission (the “SEC”) on April 20, 2006 are incorporated herein by reference.

Item 8. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>
4.1	Amended and Restated Articles of Incorporation of the Registrant (filed as Annex B to the Registration Statement on Form S-4, Registration No. 333-95917, filed by the Registrant on February 1, 2000, and incorporated herein by reference)
4.2	Amendment to Amended and Restated Articles of Incorporation of the Registrant, (filed as Exhibit 3a to the Current Report on Form 8-K, File No. 1-15885, filed by the Registrant on March 8, 2011 and incorporated herein by reference)
4.3	Amended and Restated Code of Regulations of the Registrant (filed as Exhibit 3.1 to Current Report on Form 8-K, File No. 1-15885, filed by the Registrant on February 4, 2011, and incorporated herein by reference)
4.4	2006 Stock Incentive Plan (As Amended and Restated as of May 4, 2011) (filed as Appendix A to the Registrant’s Proxy Statement dated March 25, 2011, File No. 1-15885, and incorporated herein by reference)
5	Opinion of Counsel
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Counsel (Included in Exhibit 5)
24	Power of Attorney

SIGNATURES

Pursuant to the requirements of the Securities Act, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Mayfield Heights, State of Ohio, on May 4, 2011.

MATERION COPORATION

By: /s/ Michael C. Hasychak
Michael C. Hasychak
Vice President, Secretary and Treasurer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on May 4, 2011.

Signature	Title
<u>*</u>	
Richard J. Hipple	Chairman of the Board, President, Chief Executive Officer and Director (principal executive officer)
<u>*</u>	
John D. Grampa	Senior Vice President and Chief Financial Officer (principal financial and accounting officer)
<u>*</u>	
Joseph P. Keithley	Director
<u>*</u>	
Vinod M. Khilnani	Director
<u>*</u>	
William B. Lawrence	Director
<u>*</u>	
William P. Madar	Director
<u>*</u>	
N. Mohan Reddy	Director
<u>*</u>	
William R. Robertson	Director
<u>*</u>	
John Sherwin, Jr.	Director
<u>*</u>	
Craig S. Shular	Director

* Michael C. Hasychak, the undersigned attorney-in-fact, by signing his name hereto, does hereby sign and execute this registration statement on behalf of the above indicated officers and directors thereof pursuant to a power of attorney filed with the Securities and Exchange Commission.

May 4, 2011

By: /s/ Michael C. Hasychak
Michael C. Hasychak,
Attorney-in-Fact

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[LETTERHEAD OF MATERION CORPORATION]

May 4, 2011

Board of Directors
Materion Corporation
6070 Parkland Boulevard
Mayfield Heights, Ohio 44124

Re: Materion Corporation 2006 Stock Incentive Plan (As Amended and Restated as of May 4, 2011)

Gentlemen:

I have acted as counsel for Materion Corporation, an Ohio corporation (the "Company"), in connection with the Registrant's 2006 Stock Incentive Plan (As Amended and Restated as of May 4, 2011) (the "Plan"). In connection with the opinion expressed herein, I have examined such documents, records and matters of law as I have deemed necessary for purposes of this opinion. Based upon the foregoing, and subject to further limitations, qualifications and assumptions set forth herein, I am of the opinion that the 800,000 Common Shares, without par value, of the Company (the "Common Shares") when issued and delivered pursuant to the terms of the Plan and forms of applicable award agreements thereunder, will be validly issued, fully paid and nonassessable.

The opinion expressed herein is limited to the laws of the State of Ohio, as currently in effect, and I express no opinion as to the effect of the laws of any other jurisdiction. In addition, I have assumed that the resolutions, authorizing the Company to issue or deliver and sell the Common Shares pursuant to the Plan and the applicable award agreements and the applicable award agreements, will be in full force and effect at all times at which the Common Shares are issued or delivered and sold by the Company, and the Company will take no action inconsistent with such resolutions.

In rendering the opinion above, I have assumed that each award under the Plan will be approved by the Board of Directors of the Company or an authorized committee of the Board of Directors.

I hereby consent to the filing of this opinion as Exhibit 5 to the Registration Statement on Form S-8 filed by the Company to effect registration of the Common Shares under the Securities Act of 1933 (the "Securities Act"). In giving such consent, we do not thereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission promulgated thereunder.

Very truly yours,

/s/ Gregory R. Chemnitz

Gregory R. Chemnitz
Vice President & General Counsel

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Materion Corporation 2006 Stock Incentive Plan (As Amended and Restated as of May 4, 2011) of our reports dated March 9, 2011, with respect to the consolidated financial statements and schedule of Materion Corporation and the effectiveness of internal control over financial reporting of Materion Corporation included in its Annual Report (Form 10-K) for the year ended December 31, 2010, filed with the Securities and Exchange Commission.

Cleveland, Ohio
May 4, 2011

/s/ Ernst & Young LLP

POWER OF ATTORNEY

Each of the undersigned officers and/or directors of Materion Corporation, an Ohio corporation (the “Registrant”), does hereby make, constitute and appoint each of Richard J. Hipple, John D. Grampa, and Michael C. Hasychak, and each of them, with full power of substitution and resubstitution, as attorney of the undersigned, to execute and file (i) a Registration Statement on Form S-8 (the “Form S-8 Registration Statement”) under the Securities Act of 1933 concerning Common Shares of the Registrant to be offered in connection with the 2006 Stock Incentive Plan, (ii) any and all amendments, including post-effective amendments, and exhibits to the Form S-8 Registration Statement and (iii) any and all applications or other documents to be filed with the Securities and Exchange Commission or any state securities commission or other regulatory authority with respect to the securities covered by the Form S-8 Registration Statement, with full power and authority to do and perform any and all acts and things whatsoever necessary, appropriate or desirable to be done in the premises, or in the name, place and stead of the said director and/or officer, hereby ratifying and approving the acts of said attorneys and any of them and any such substitute.

IN WITNESS WHEREOF, the undersigned have subscribed these presents as of the 4th day of May 2011.

/s/ Richard J. Hipple

Richard J. Hipple, Chairman, President,
Chief Executive Officer and Director
(principal executive officer)

/s/ William P. Madar,

William P. Madar, Director

/s/ John D. Grampa

John D. Grampa, Vice President
Chief Financial Officer
(principal financial and accounting officer)

/s/ N. Mohan Reddy

N. Mohan Reddy, Director

/s/ Joseph P. Keithley

Joseph P. Keithley, Director

/s/ William R. Robertson,

William R. Robertson, Director

/s/ Vinod M. Khilnani

Vinod M. Khilnani, Director

/s/ John Sherwin, Jr.

John Sherwin, Jr., Director

/s/ William B. Lawrence

William B. Lawrence, Director

/s/ Craig S. Shular,

Craig S. Shular, Director