

[Best Available]

SECOND AMENDED AND RESTATED ARTICLES OF INCORPORATION

OF

BRUSH WELLMAN INC.

FIRST: The name of the Corporation shall be Brush Wellman Inc.

SECOND: The place in the State of Ohio where its principal office is to be located is the City of Cleveland, Cuyahoga County.

THIRD: The purpose or purposes for which it is formed are:

1. To engage in, and exploit the results of; scientific research.

2. To acquire, own, lease, work and operate mines, and to deal in minerals, and to produce or cause to be produced products therefrom.

3. To manufacture, buy or otherwise acquire, own, mortgage, pledge, sell, assign, lease, license, or otherwise dispose of; import, export, trade and deal in and with goods, wares, merchandise, and personal property of every kind and description.

4. To secure, register, purchase, lease or otherwise acquire, hold, use, own, operate and introduce, and sell, assign, or otherwise dispose of; any trademarks, trade names, copyrights, patents, inventions, improvements and processes, whether used in connection with or secured under letters patent of the United States or elsewhere, or otherwise, and to use, exercise, develop and grant licenses in respect of; or otherwise turn to account any such trademarks, copyrights, patents, licenses, processes and the like, or any property or rights.

5. To acquire, own, hold, dispose of; and generally deal in bonds, debentures, notes, stocks, mortgages, choses in action and intangible property of every nature.

6. To purchase, lease, or otherwise acquire, own, improve, operate, lease, mortgage, sell, or otherwise dispose of; real property, and interests therein, and to construct, erect, equip, manufacture, occupy, conduct, manage, repair, improve, lease, mortgage, sell, or otherwise dispose of; fixtures, mills, residences, buildings, and structures of all kinds.

7. To carry on and transact any of the foregoing purposes as

principal, agent or broker.

8. To the same extent and as fully as natural persons might lawfully or could do, to do all and every lawful act and thing and to enter into, make and perform contracts of every kind, without limitation as to amount, necessary, suitable or convenient and proper for the accomplishment of any of the purposes or the performance of any of the objects or incidental to any of the powers hereinbefore enumerated or which at any time shall appear conducive or expedient for the protection or benefit of the Corporation; the enumeration of specific powers not being a limitation or restriction in any manner of the general powers of the Corporation.

9. To do all or any of such acts or things and exercise any of such powers in the State of Ohio, other states, the District of Columbia, the territories, colonies, and possessions of the United States, and in any foreign countries, to comply with the requirements of laws of such other jurisdictions to enable it to do business therein, and to maintain such offices, branches or plants either within or without the State of Ohio as may be convenient.

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FOURTH: The authorized number of shares of the Corporation is 50,000,000 consisting of 5,000,000 shares of Serial Preferred Stock, without par value, and 45,000,000 shares of Common Stock of the par value of \$1 per share. All authorized but unissued shares of Common Stock of the Corporation shall be free from preemptive rights of shareholders to subscribe for and purchase any part thereof, and may be disposed of by the Board of Directors of the Corporation at any time or from time to time for such consideration not less than the par value thereof as may be fixed by the Board of Directors.

DIVISION A  
EXPRESS TERMS OF THE SERIAL PREFERRED STOCK

SECTION 1. The Serial Preferred Stock may be issued from time to time in one or more series. All shares of Serial Preferred Stock shall be of equal rank and shall be identical, except in respect of the matters that may be

fixed by the Board of Directors as hereinafter provided, and each share of each series shall be identical with all other shares of such series, except as to the date from which dividends are cumulative. Subject to the provisions of Section 2 to 8, both inclusive, of this Division A, which provisions shall apply to all Serial Preferred Stock, the Board of Directors hereby is authorized to cause such shares to be issued in one or more series, and with respect to each such series, prior to the issuance thereof, to fix:

(a) The designation of the series which may be by distinguishing number, letter or title.

Board (b) The number of shares of the series, which number the of Directors may (except where otherwise provided in the creation of the series) increase or decrease (but not below the number of shares thereof then outstanding).

(c) The annual dividend rate of the series.

(d) The dates at which dividends, if declared, shall be payable, and the dates from which dividends shall be cumulative.

(e) The redemption rights and price or prices, if any, for shares of the series.

the (f) The terms and amount of any sinking fund provided for purchase or redemption of shares of the series.

event up (g) The amounts payable on shares of the series in the of any voluntary or involuntary liquidation, dissolution or winding of the affairs of the Corporation.

into such (h) Whether the shares of the series shall be convertible Common Stock, and, if so, the conversion price or prices, any adjustments thereof; and all other terms and conditions upon which conversion may be made.

same (i) Restrictions (in addition to those set forth in Section 6(b) and 6(c) of this Division) on the issuance of shares of the series or of any other class or series.

The Board of Directors is authorized to adopt from time to time amendments to the Articles of Incorporation fixing, with respect to each such series, the matters described in clauses (a) to (i), both inclusive, of this Section 1.

SECTION 2. The holders of Serial Preferred Stock of each

series, in preference to the holders of Common Stock and of any other class of shares ranking junior to the Serial Preferred Stock, shall be entitled to receive out of any funds legally available and when and as declared by the Board of Directors dividends in cash at the rate for such series fixed in accordance with the provisions of Section 1 of this Division and no more, payable quarterly on the dates fixed for such series. Such dividends shall be cumulative, in the case of shares of each particular series, from and after the date or dates fixed with respect to such series. No dividends may be paid upon or declared or set apart for any of the Serial Preferred Stock for any quarterly dividend period unless at the same time a like proportionate dividend for the same quarterly dividend period, ratably in proportion to the respective annual

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dividend rates fixed therefor, shall be paid upon or declared or set apart for all Serial Preferred Stock of all series then issued and outstanding and entitled to receive such dividend.

SECTION 3. In no event so long as any Serial Preferred Stock shall be outstanding shall any dividends, except a dividend payable in Common Stock or other shares ranking junior to the Serial Preferred Stock, be paid or declared or any distribution be made except as aforesaid in the Common Stock or any other shares ranking junior to the Serial Preferred Stock, nor shall y Common Stock or any other shares ranking junior to the Serial Preferred Stock be purchased, retired, or otherwise acquired by the Corporation (except out of the proceeds of the sale of Stock or other shares ranking junior to the Serial Preferred Stock received by the Corporation subsequent to March 31, 1968):

(a) Unless all accrued and unpaid dividends on Serial Preferred Stock, including the full dividends for the current quarterly dividend period, shall have been declared and paid or a sum sufficient for payment thereof set apart; and

(b) Unless there shall be no arrearages with respect to the redemption of Serial Preferred Stock of any series from any sinking fund provided for shares of such series in accordance with the provisions of Section 1 of this Division.

SECTION 4. (a) Subject to the express terms of each series and to the provisions of Section 6(b) (iii) of this Division, the Corporation may from time to time redeem all or any part of the Serial Preferred Stock of any series at the time outstanding (i) at the option of the Board of Directors at the applicable redemption price for such series fixed in accordance with the provisions of Section 1 of this Division, or (ii) in fulfillment of the requirements of any sinking fund provided for shares of such series at the applicable sinking fund redemption price, fixed in accordance with the provisions of Section 1 of this Division, together in each case with an amount equal to all dividends accrued and unpaid thereon (whether or not such dividends shall have been earned or declared) to the redemption date.

(b) Notice of every such redemption shall be mailed, postage prepaid, to the holders of record of the Serial Preferred Stock to be redeemed at their respective addresses then appearing on the books of the Corporation, not less than 30 days nor more than 60 days prior to the date fixed for such redemption. At any time before or after notice has been given as above provided, the Corporation may deposit the aggregate redemption price of the shares of Serial Preferred Stock to be redeemed, together with accrued and unpaid dividends thereon to the redemption date, with any bank or trust company in Cleveland, Ohio, or New York, New York, having capital and surplus of more than \$5,000,000, named in such notice, and direct that such deposited amount be paid to the respective holders of the shares of Serial Preferred Stock so to be redeemed, upon surrender of the stock certificate or certificates held by such holders. Upon the giving of such notice and the making of such deposit, such holders shall cease to be shareholders with respect to such shares and shall have no interest in or claim against the Corporation with respect to such shares except only to receive such money from such bank or trust company without interest or the right to exercise any unexpired privileges of conversion. In case less than all of the outstanding shares of Serial Preferred Stock are to be redeemed, the Corporation shall select pro rata or by lot the shares so to be redeemed in such manner as shall be prescribed by its Board of Directors.

If the holders of shares of Serial Preferred Stock which shall have been called for redemption shall not, within six years after such deposit, claim the amount deposited for the redemption thereof; any such bank or trust company shall, upon demand, pay over to the Corporation such unclaimed amounts and thereupon such bank or trust company and the Corporation shall be relieved of all responsibility in respect thereof and to such holders.

(c) Any shares of Serial Preferred Stock which are redeemed by the Corporation pursuant to the provisions of this Section 4 and any shares of Serial Preferred Stock which are purchased and delivered in satisfaction of any sinking fund requirements provided for shares of such series and any shares of Serial Preferred Stock which are converted in accordance with the express terms thereof shall be cancelled and not reissued. Any shares of Serial Preferred Stock otherwise acquired by the Corporation shall resume the status of authorized and unissued shares of Serial Preferred Stock without serial designation.

SECTION 5. (a) The holders of Serial Preferred Stock of any series shall, in case of voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation, be entitled to receive in full out of the assets of the Corporation, including its capital, before any amount shall be paid or distributed among the holders

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of the Common Stock or any other shares ranking junior to the Serial Preferred Stock, the amounts fixed with respect to shares of such series in accordance with Section 1 of this Division plus in any such event an amount equal to all dividends accrued and unpaid thereon (whether or not such dividends shall have been earned or declared) to the date of payment of the amount due pursuant to such liquidation, dissolution or winding up of the affairs of the Corporation.

In case the net assets of the Corporation legally available therefor are insufficient to permit the payment upon all outstanding shares of Serial Preferred Stock of the full preferential amount to which they are respectively entitled, then such net assets shall be distributed ratably upon outstanding shares of Serial Preferred Stock in proportion to the full preferential amount to which each such share is entitled.

After payment to holders of Serial Preferred Stock of the full preferential amounts as aforesaid, holders of Serial Preferred Stock as such have no right or claim to any of the remaining assets of the Corporation.

(b) The merger or consolidation of the Corporation into or with any other corporation, or the merger of any other corporation into it, or the sale, lease or conveyance of all or substantially all the property or

business of the Corporation, shall not be deemed to be a dissolution, liquidation or winding up, voluntary or involuntary, for the purposes of this Section 5.

SECTION 6. (a) The holders of Serial Preferred Stock shall be entitled to one vote for each share of such stock upon all matters presented to the shareholders; and, except as otherwise provided herein or required by law, the holders of Serial Preferred Stock and the holders of Common Stock shall vote together as one class on all matters. No adjustment of the voting rights of the holders of Serial Preferred Stock shall be made in the event of an increase or decrease in the number of shares of Common Stock authorized or issued or in the event of a stock split or combination of the Common Stock or in the event of a stock dividend on any class of stock payable solely in Common Stock.

If, and so often as, the Corporation shall be in default in the payment of dividends in an amount equivalent to six quarterly dividends (whether or not consecutive) on any series of Serial Preferred Stock at the time outstanding, whether or not earned or declared, the holders of Serial Preferred Stock of all series, voting separately as a class and in addition to all other rights to vote for directors, shall thereafter be entitled to elect, as herein provided, two members of the Board of Directors of the Corporation who shall serve, except as hereinbelow provided, until the next annual meeting of the shareholders and until their successors have been elected and qualified: provided, however, that the holders of shares of Serial Preferred Stock shall not have or exercise such special class voting rights except at meetings of the shareholders for the election of directors at which the holders of not less than 35% of the outstanding shares of Serial Preferred Stock of all series then outstanding are present in person or by proxy; and provided further that the special class voting rights provided for herein when the same shall have become vested shall remain so vested until all accrued and unpaid dividends on the Serial Preferred Stock of all series then outstanding shall have been paid, whereupon the holders of Serial Preferred Stock shall be divested of their special class voting rights in respect of subsequent elections of directors and the terms of the directors elected by the holders of the Serial Preferred Stock shall automatically terminate, subject to the re-vesting of such special class voting rights in the event hereinabove specified in this paragraph.

In the event of default entitling the holders of Serial Preferred Stock to elect two directors as above specified, a special meeting of

the shareholders for the purpose of electing such directors shall be called by the Secretary of the Corporation upon written request of; or may be called by, the holders of record of at least 10% of the shares of Serial Preferred Stock of all series at the time outstanding, and notice thereof shall be given in the same manner as that required for the annual meeting of shareholders; provided, however, that the Corporation shall not be required, and the holders of Serial Preferred Stock shall not be entitled, to call such special meeting if the annual meeting of shareholders shall be held within 90 days after the date of receipt of the foregoing written request from the holders of Serial Preferred Stock. At any meeting at which the holders of Serial Preferred Stock shall be entitled to elect directors, the holders of 35% of the then outstanding shares of Serial Preferred Stock of all series, present in person or by proxy, shall be sufficient to constitute a quorum, and the vote of the holders of a majority of such shares so present at any such meeting at which there shall be such a quorum shall be sufficient to elect the members of the Board of Directors which the holders of Serial Preferred Stock are entitled to elect as hereinabove provided. If at any such meeting there shall be less than a quorum present, the holders of a majority of the shares so present may adjourn the meeting from time to time without notice other than announcement at the meeting until a quorum shall attend.

The two directors who may be elected by the holders of Serial Preferred Stock pursuant to the foregoing provisions shall be in addition to any other directors then in office or proposed to be elected otherwise than

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pursuant to such provisions, and nothing in such provisions shall prevent any change otherwise permitted in the total number of directors of the Corporation or require the resignation of any director elected otherwise than pursuant to such provisions.

(b) The affirmative vote or consent of the holders of at least two-thirds of the shares of Serial Preferred Stock at the time outstanding, given in person or by proxy either in writing or at a meeting called for the purpose at which the holders of Serial Preferred Stock shall vote separately as



a class, shall be necessary to effect any one or more of the following (but so far as the holders of Serial Preferred Stock are concerned, such action may be effected with such vote or consent):

(i) Any amendment, alteration or repeal of any of the provisions of the Articles of Incorporation or of the Regulations of the Corporation which affects adversely the voting powers, right or preferences of the holders of Serial Preferred Stock; provided, however, that, for the purpose of this clause (i) only, neither the amendment of the Articles of Incorporation so as to authorize or create, or to increase the authorized or outstanding amount of; Serial Preferred Stock or of any shares of any class ranking on a parity with or junior to the Serial Preferred Stock, nor the amendment of the provisions of the Regulations so as to increase the number of directors of the Corporation, shall be deemed to affect adversely the voting powers, rights or preferences of the holders of Serial Preferred Stock; and provided further, that if such amendment, alteration or repeal affects adversely the rights or preferences of one or more but not all series of Serial Preferred Stock at the time outstanding, only the vote or consent of the holders of at least two-thirds of the number of the shares at the time outstanding of the series so affected shall be required; or

(ii) The authorization or creation of; or the increase in the authorized amount of; any shares of any class, or any security convertible into shares of any class, ranking prior to the Serial Preferred Stock; or

(iii) The purchase or redemption (for sinking fund purposes or otherwise) of less than all of the Serial Preferred Stock then outstanding except in accordance with a stock purchase offer made to all holders of record of Serial Preferred Stock, unless all dividends upon all Serial Preferred Stock then outstanding for all previous quarterly dividend periods shall have been declared and paid or funds therefor set apart and all accrued sinking fund obligations applicable thereto shall have been complied with.

(c) The affirmative vote or consent of the holders of at least a majority of the shares of Serial Preferred Stock at the time outstanding, given in person or by proxy in writing or at a meeting called for the purpose at which the holders of Serial Preferred Stock shall vote separately as a class,

shall be necessary to effect any one or more of the following (but so far as the holders of Serial Preferred Stock are concerned, such action may be effected with such vote or consent):

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(i) The consolidation of the Corporation with or its merger into any other corporation unless the corporation resulting from consolidation or merger will have after such consolidation or merger a class of shares either authorized or outstanding ranking prior to or on a parity with the Serial Preferred Stock except the same number of shares ranking prior to or on a parity with the Serial Preferred and having the same rights and preferences as the shares of the Corporation authorized and outstanding immediately preceding such consolidation or merger, and each holder of Serial Preferred Stock immediately preceding such consolidation or merger shall receive the same number of shares, with the same rights and preferences of the resulting corporation; or

with  
of

(ii) The authorization of any shares ranking on a parity the Serial Preferred Stock or an increase in the authorized number shares of Serial Preferred Stock; or

all

(iii) The sale, lease or conveyance by the Corporation of or substantially all of its property or business.

SECTION 7. If the shares of any series of Serial Preferred Stock shall be convertible into Common Stock, then upon conversion of shares of such series the stated capital of the Common Stock issued upon such conversion shall be the aggregate par value of the shares so issued having par value, or, in the case of Shares without par value, shall be an amount equal to the stated capital represented by each share of Common Stock outstanding at the time of such conversion multiplied by the number of shares of Common Stock issued upon such conversion. The stated capital of the Corporation shall be correspondingly increased or reduced to reflect the difference between the

stated capital of the shares of Serial Preferred Stock so converted and the stated capital of the Common Stock issued upon such conversion.

SECTION 8. For the purpose of this Division A:

Whenever reference is made to shares "ranking prior to the Serial Preferred Stock", such reference shall mean and include all shares of the Corporation in respect of which the rights of the holders thereof as to the payment of dividends or as to distributions in the event of an involuntary liquidation, dissolution or winding up of the Corporation are given preference over the rights of the holders of Serial Preferred Stock; whenever reference is made to shares "on a parity with the Serial Preferred Stock", such reference shall mean and include all shares of the Corporation in respect of which the rights of the holders thereof as to the payment of dividends and as to distributions in the event of an involuntary liquidation, dissolution or winding up of the Corporation rank on an equity (except as to the amounts fixed therefor) with the rights of the holders of Serial Preferred Stock; and whenever reference is made to shares "ranking junior to the Serial Preferred Stock", such reference shall mean and include all shares of the Corporation in respect of which the rights of the holders as to the payment of dividends and as to distributions in the event of an involuntary liquidation, dissolution or winding up of the Corporation are junior and subordinate to the rights of the holders of the Serial Preferred Stock.

#### DIVISION A-1

##### SERIAL PREFERRED STOCK, SERIES A

SECTION 1. There is established hereby a series of Serial Preferred Stock that shall be designated, "Serial Preferred Stock, Series A" (hereinafter sometimes called this "Series" or the "Series A Preferred Shares") and that shall have the terms set forth in this Division A-1.

SECTION 2. The number of shares of this Series shall be 450,000.

SECTION 3. (a) The holders of record of Series A Preferred Shares shall be entitled to receive, when and as declared by the Board of Directors in accordance with the terms hereof; out of funds legally available for the purpose, cumulative quarterly dividends payable in cash on the first day of January, April, July and October in each year (each such date being referred to herein as a "Quarterly Dividend Payment Date"), commencing on the first Quarterly Dividend Payment Date after the first issuance of a Series A Preferred

Share or fraction of a Series A Preferred Share in an amount per share (rounded to the nearest cent) equal to the lesser of (i) \$1.50 or (ii) subject to the provision for adjustment hereinafter set forth, 100 times the aggregate per share amount of all cash dividends, and 100 times the aggregate per share amount (payable in kind) of all non-cash dividends or other distributions, other than a dividend payable in shares of Common Stock, or a subdivision of the outstanding Common Stock (by reclassification or otherwise), declared on the Common Stock since the immediately preceding Quarterly Dividend Payment Date, or, with respect to the first Quarterly Dividend Payment Date, since the first issuance of any Series A Preferred Share or fraction of a Series A Preferred Share. In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in Common Stock, or effect a subdivision or combination or consolidation of the outstanding shares of Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount to which holders of Series A Preferred Shares were entitled immediately prior to such event under clause (ii) of the preceding sentence shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(b) Dividends shall begin to accrue and be cumulative on outstanding Series A Preferred Shares from the Quarterly Dividend Payment Date next preceding the date of issue of such Series A Preferred Shares, unless the date of issue of such shares is prior to the record date for the first Quarterly Dividend Payment Date, in which case dividends on such shares shall begin to accrue from the date of issue of such shares, or unless the date of issue is a Quarterly Dividend Payment Date or is a date after the record date for the determination of holders of shares of Series A Preferred Shares entitled to receive a quarterly dividend and before such Quarterly Dividend Payment Date, in either of which events such dividends shall begin to accrue and be cumulative from such Quarterly Dividend Payment Date. Accrued but unpaid dividends shall not bear interest. No dividends shall be paid upon or declared and set apart for any Series A Preferred Shares for any dividend period unless at the same time a dividend for the same dividend period, ratably in proportion to the respective annual dividend rates fixed therefor, shall be paid upon or

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declared and set apart for all Serial Preferred Stock of all series then outstanding and entitled to receive such dividend. The Board of Directors may fix a record date for the determination of holders of Series A Preferred Shares entitled to receive payment of a dividend or distribution declared thereon, which record date shall be no more than 40 days prior to the date fixed for the payment thereof.

SECTION 4. Subject to the provisions of Section 6(b) (iii) of Division A and in accordance with Section 4 of Division A, the Series A Preferred Shares shall be redeemable from time to time at the option of the Board of Directors of the Corporation, as a whole or in part, at any time at a redemption price per share equal to one hundred times the then applicable Purchase Price as defined in that certain Rights Agreement, dated as of January 27, 1998, between the Corporation and National City Bank, N.A. (the "Rights Agreement"), as the same may from time to time be amended in accordance with its terms, which Purchase Price is \$110 as of January 27, 1998, subject to adjustment from time to time as provided in the Rights Agreement. Copies of the Rights Agreement are available from the Company upon request. In the event that fewer than all of the outstanding Series A Preferred Shares are to be redeemed, the number of shares to be redeemed shall be as determined by the Board of Directors and the shares to be redeemed shall be selected pro rata or by lot in such manner as shall be determined by the Board of Directors.

SECTION 5. (a) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the affairs of the Corporation (hereinafter referred to as a "Liquidation"), no distribution shall be made to the holders of shares of stock ranking junior (either as to dividends or upon Liquidation) to the Series A Preferred Shares, unless, prior thereto, the holders of Series A Preferred Shares shall have received at least an amount per share equal to one hundred times the then applicable Purchase Price as defined in the Rights Agreement, as the same may be from time to time amended in accordance with its terms, which Purchase Price is \$110 as of January 27, 1998, subject to adjustment from time to time as provided in the Rights Agreement, plus an amount equal to accrued and unpaid dividends and distributions thereon, whether or not earned or declared, to the date of such payment, provided that

the holders of shares of Series A Preferred Shares shall be entitled to receive an aggregate amount per share, subject to the provision for adjustment hereinafter set forth, equal to 100 times the aggregate amount to be distributed per share to holders of Common Stock (the "Series A Liquidation Preferences").

(b) In the event, however, that the net assets of the Corporation are not sufficient to pay in full the amount of the Series A Liquidation Preference and the liquidation preferences of all other series of Serial Preferred Stock, if any, which rank on a parity with the Series A Preferred Shares as to distribution of assets in Liquidation, all shares of this Series and of such other Serial Preferred Stock shall share ratably in the distribution of assets (or proceeds thereof) in Liquidation in proportion to the full amounts to which they are respectively entitled.

(c) In the event the Corporation shall at any time declare or pay any dividend on the Common Stock payable in Common Stock, or effect a subdivision or combination or consolidation of the outstanding Common Stock (by reclassification or otherwise than by payment of a dividend in Common Stock) into a greater or lesser number of shares of Common Stock, then in each such case the amount to which holders of Series A Preferred Shares were entitled immediately prior to such event pursuant to the proviso set forth in paragraph

(a) above, shall be adjusted by multiplying such amount by a fraction the numerator of which is the number of shares of Common Stock outstanding immediately after such event and the denominator of which is the number of shares of Common Stock that were outstanding immediately prior to such event.

(d) The merger or consolidation of the Corporation into or with any other corporation, or the merger of any other corporation into it, or the sale, lease or conveyance of all or substantially all the property or business of the Corporation, shall not be deemed to be a Liquidation for the purposes of this Section 5.

SECTION 6. The Series A Preferred Shares shall not be convertible into Common Stock.

FIFTH: The Corporation may from time to time, pursuant to authorization by the Board of Directors and without action by shareholders, purchase or otherwise acquire shares of the Corporation of any class or classes in such manner, upon such terms and in such amounts as the Board of Directors shall determine.

SIXTH: Notwithstanding any provision of the Ohio Revised Code now or hereafter in force requiring for any purpose the vote, consent, waiver or release of the holders of shares entitling them to exercise two-thirds, or any

other proportion, of the voting power of the Corporation or of any class or classes of shares thereof; such action, unless otherwise expressly required by statute or by the Articles of the Corporation, may be taken by the

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vote, consent, waiver or release of the holders of shares entitling them to exercise a majority of the voting power of the Corporation or of such class or classes.

SEVENTH: SECTION 1. In addition to any affirmative vote required by law or these Articles of Incorporation, any Related Party Transaction shall require the affirmative vote of not less than both a majority of the Corporation's outstanding Voting Stock and a majority of the portion of the Corporation's outstanding Voting Stock excluding the Voting Stock owned by the Related Party involved in the Related Party Transaction. In the event of any inconsistency between this Article Seventh and any other provision of these Articles of Incorporation, this Article Seventh shall govern.

SECTION 2. The provisions of Section 1 of this Article Seventh shall not be applicable to Related Party Transactions in which (a) the aggregate amount of the cash and the fair market value of consideration other than cash received per share by holders of outstanding shares of each class or series of Voting Stock of the Corporation who receive cash or other consideration in the Related Party Transaction is not less than the highest per share price (with appropriate adjustments for recapitalizations and for stock splits, stock dividends, and other distributions) paid by the Related Party in acquiring any of its holdings of each class or series of such Voting Stock and (b) the form of consideration received by holders of shares of each class or series of such Voting Stock in cash or the same form of the consideration used by the Related Party to acquire the largest percentage of each class or series of such Voting Stock owned by the Related Party.

SECTION 3. The provisions of Section 1 of this Article Seventh

shall not be applicable to any Related Party Transaction expressly approved by a majority vote of the Continuing Directors of the Corporation.

SECTION 4. For the purpose of this Article Seventh:

(a) The term "Related Party Transaction" shall mean (i) any merger or consolidation of the Corporation or a Subsidiary with a Related Party, irrespective of which party, if either, is the surviving party, (ii) any sale, purchase, lease, exchange, transfer, or other transaction (or series of transactions) between the Corporation or a Subsidiary and a Related Party involving the acquisition or disposition of assets for consideration of \$5,000,000 or more in value (except transactions in the ordinary course of business), (iii) the issuance or transfer of any securities of the Corporation or of a Subsidiary to a Related Party (other than an issuance or transfer of securities which is effected on a pro rata basis to all shareholders of the Corporation), (iv) any reclassification of securities of the Corporation (including any reverse stock split) or any recapitalization or other transaction involving the Corporation or its Subsidiaries that would have the effect of increasing the voting power of a Related Party, except for any mandatory redemption required by the terms of outstanding securities, and (v) the adoption of any plan or proposal which for the liquidation or dissolution of the Corporation in favor of a Related Party votes its Voting Stock.

(b) The term "Related Party" shall mean (i) any individual, corporation, partnership, or other person, group or entity which, together with its Affiliates and Associates, is the beneficial owner often percent (10%) or more but less than ninety percent (90%) of the Voting Stock of the Corporation or (ii) any such Affiliate or Associate.

(c) A person shall be a "beneficial owner" of any shares of Voting Stock:

- (1) Which such person or any of its Affiliates or Associates beneficially owns, directly or indirectly; or
- (2) Which such person or any of its Affiliates or Associates has (i) the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding or upon the exercise of conversion rights, exchange rights, warrants or options, or otherwise, or (ii) the right to vote



pursuant to any agreement, arrangement or understanding; or

any  
arrangement  
voting

(3) Which are beneficially owned, directly or indirectly, by any other person with which such person or of its Affiliates or Associates has any agreement, or understanding for the purpose of acquiring, holding, or disposing of any shares of Voting Stock.

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(d) The terms "Affiliate" and "Associate" shall have the respective meanings ascribed to such terms in Rule 1 2b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934, as in effect on April 22, 1986.

limitation,  
shareholders  
which

(e) The term "consideration other than cash" as used in Section 2(a) of this Article Seventh shall include, without Voting Stock of the Corporation retained by its existing in the event of a merger or consolidation with a Related Party in the Corporation is the surviving corporation.

securities

(f) The term "Subsidiary" shall mean any Affiliate of the Corporation more than fifty percent (50%) of the outstanding of which representing the right, other than as affected by events of default, to vote for the election of directors is owned by the Corporation or by another Subsidiary (or both).

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(g) The term "Voting Stock" shall mean all securities of Corporation entitled to vote generally in the election of directors.

who

(h) The term "Continuing Director" shall mean a director either (i) was a member of the Board of Directors of the Corporation immediately prior to the time that the Related Party involved in a Related Party Transaction became a Related Party, or (ii) was designated (before his or her initial election as a director) as a Continuing Director by a majority of the then Continuing Directors.

have  
the power and duty to determine conclusively for the purposes of this Article

SECTION 5. A majority of the Continuing Directors shall

Seventh, on the basis of information known to them, (a) whether a person is a Related Party, (b) whether a person is an Affiliate or Associate of another, (c) whether a transaction between the Corporation or a Subsidiary and a Related Party involves the acquisition or disposition of assets for consideration of \$5,000,000 or more in value, (d) the fair market value of consideration other than cash received by holders of Voting Stock in a Related Party Transaction, and (e) such other matters with respect to which a determination or interpretation is required under this Article Seventh.

SECTION 6. Nothing contained in this Article Seventh shall be construed to relieve any Related Party from any fiduciary or other obligation imposed by law.

SECTION 7. Notwithstanding any other provision of these Articles of Incorporation or the Regulations of the Corporation or any provision of law which might otherwise permit a lesser vote, but in addition to any affirmative vote of the holders of any particular class or series of stock required by law, these Articles of Incorporation or the Regulations of the Corporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the Corporation's Voting Stock, voting as a single class, shall be required to alter, amend or adopt any provision inconsistent with or repeal this Article Seventh.

EIGHTH: These Second Amended and Restated Articles of Incorporation supersede and take the place of the heretofore existing Amended Articles of Incorporation of the Corporation and all amendments thereto.



Prescribed by:

The Ohio Secretary of State  
 Central Ohio: (614) 466-3910  
 Toll Free: 1-877-SOS-FILE (1-877-767-3453)

www.sos.state.oh.us  
 e-mail: busserv@sos.state.oh.us

<b>Expedite this Form:</b> (Select One)	
<b>Mail Form to one of the Following:</b>	
<input type="radio"/> Yes	PO Box 1390 Columbus, OH 43216 *** Requires an additional fee of \$100 ***
<input type="radio"/> No	PO Box 1329 Columbus, OH 43216

**Certificate of Amendment by Directors  
 or Incorporators to Articles  
 (Domestic)  
 Filing Fee \$50.00**

**(CHECK ONLY ONE (1) BOX)**

(1) <input checked="" type="checkbox"/> Amendment by Directors <input type="checkbox"/> Amended by Directors (123-AMDD)	(2) <input type="checkbox"/> Amendment by Incorporators <input type="checkbox"/> Amended by Incorporators (124-AMDI)
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**Complete the general information in this section for the box checked above.**

Name of Corporation	<u>Brush Engineered Materials Inc.</u>
Charter Number	<u>1129752</u>
<input type="checkbox"/> Please check if additional provisions attached hereto are incorporated herein and made a part of these articles of organization.	

**Complete the information in this section if box (1) is checked.**

Name and Title of Officer	<u>Michael C. Hasychak</u>	<u>Vice President/Secretary</u>
	(name)	(title)
<b>(CHECK ONLY ONE (1) BOX)</b>		
<input checked="" type="checkbox"/> A meeting of the directors was duly called and held on	<u>December 1, 2010</u>	(Date)
<input type="checkbox"/> In an writing signed by all the Directors pursuant to section 1701.54 of the ORC		
The following resolution was adopted pursuant to section 1701.70(B) <u>(6)</u> of the ORC: (insert proper paragraph number)		
<u>Resolved: That pursuant to Section 1701.70(B)(6) of the Ohio Revised Code, the Directors</u>		
<u>hereby adopt an amendment to Article I of the Amended and Restated Articles of Incorporation</u>		
<u>to change the name of the Corporation to be Materion Corporation, effective as of</u>		
<u>March 8, 2011.</u>		

March 8, 2011.

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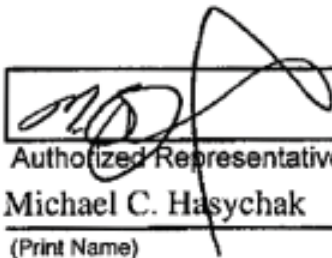
Complete the information in this section if box (2) is checked.

WE, the undersigned, being all of the incorporators of the above named corporation, do certify that the subscriptions to shares have not been received and the initial directors are not named in the articles. We hereby have elected to amend the articles as follows:

Five horizontal lines for providing details of amendments to the articles.

**REQUIRED**

Must be authenticated (signed) by an authorized representative (See Instructions)

  
Authorized Representative  
Michael C. Hasychak  
(Print Name)

March 7, 2011  
Date

Authorized Representative  
(Print Name)

Date

Authorized Representative  
(Print Name)

Date



**AMENDED AND RESTATED ARTICLES OF INCORPORATION  
OF  
MATERION CORPORATION**

**ARTICLE X**

Except as may be otherwise provided in any Preferred Stock Designation, the number of the directors of the Corporation will not be less than 9 nor more than 18 as may be determined from time to time only (i) by a vote of a majority of the total number of directors that the Corporation would have if there were no vacancies on the Board, or (ii) by the affirmative vote of the holders of at least 50% of the voting power of the Corporation, voting together as a single class. ~~The~~ **Until the 2017 annual meeting of shareholders, the** directors, other than those who may be expressly elected by virtue of the terms of any Preferred Stock Designation, will be classified with respect to the time for which they severally hold office into three classes, as nearly equal in size as possible and consisting of not less than three directors in each class, ~~designated Class I, Class II and Class III. The directors first appointed to Class I will hold office. Directors elected at or prior to the 2014 annual meeting of shareholders will hold office for the term of three years from the date of their election and until the election of their successors. At the 2015 annual meeting of shareholders, the directors elected to succeed those directors whose terms expire at that meeting will hold office for the term of two years from the date of their election and until the election of their successors. At the 2016 annual meeting of shareholders, the directors elected to succeed those directors whose terms expire at that meeting will hold office for the term of one year from the date of their election and until the election of their successors. At the 2017 annual meeting of shareholders, and each annual meeting of shareholders thereafter, each director will be elected for a term expiring at the next annual meeting of shareholders to be held in 2001, the directors first appointed to Class II will hold office for a term expiring at the annual meeting of shareholders to be held in 2002, and the directors first appointed to Class III will hold office for a term expiring at the annual meeting of shareholders to be held in 2003. The members of each class will hold office~~ **and until the election of their successors are elected.** Except as may be otherwise provided in any Preferred Stock Designation, at each annual meeting of the shareholders of the Corporation, the successors ~~of~~ **to** the class of directors whose terms expire at that meeting shall be elected by a plurality vote of all votes cast at such meeting ~~to hold office for a term expiring at the annual meeting of shareholders held in the third year following the year of their election.~~ No decrease in the number of directors constituting the Board of Directors may shorten the term of any incumbent director. Election of directors of the Corporation need not be by written ballot unless requested by the presiding officer or by the holders of a majority of the voting power of the Corporation present in person or represented by proxy at a meeting of the shareholders at which directors are to be elected.

**AMENDED AND RESTATED ARTICLES OF INCORPORATION  
OF  
MATERION CORPORATION**

**ARTICLE X**

Except as may be otherwise provided in any Preferred Stock Designation, the number of the directors of the Corporation will not be less than 9 nor more than 18 as may be determined from time to time only (i) by a vote of a majority of the total number of directors that the Corporation would have if there were no vacancies on the Board, or (ii) by the affirmative vote of the holders of at least 50% of the voting power of the Corporation, voting together as a single class. The directors, other than those who may be expressly elected by virtue of the terms of any Preferred Stock Designation, will be classified with respect to the time for which they severally hold office into three classes, as nearly equal in size as possible and consisting of not less than three directors in each class, designated Class I, Class II and Class III. The directors first appointed to Class I will hold office for a term expiring at the annual

meeting of shareholders to be held in 2001, the directors first appointed to Class II will hold office for a term expiring at the annual meeting of shareholders to be held in 2002, and the directors first appointed to Class III will hold office for a term expiring at the annual meeting of shareholders to be held in 2003. The members of each class will hold office until their successors are elected. Except as may be otherwise provided in any Preferred Stock Designation, at each annual meeting of the shareholders of the Corporation, the successors of the class of directors whose terms expire at that meeting shall be elected by plurality vote of all votes cast at such meeting to hold office for a term expiring at the annual meeting of shareholders held in the third year following the year of their election. **No holder of shares of any class of capital stock of the Corporation shall have the right to cumulate the voting power in respect of those shares in the election of directors, and the right to cumulate the voting power in the election of directors as provided in Section 1701.55 of the Ohio Revised Code is hereby specifically denied to all holders of shares of any class of capital stock of the Corporation.** No decrease in the number of directors constituting the Board of Directors may shorten the term of any incumbent director. Election of directors of the Corporation need not be by written ballot unless requested by the presiding officer or by the holders of a majority of the voting power of the Corporation present in person or represented by proxy at a meeting of the shareholders at which directors are to be elected.

[As Filed: 04-09-2014]