

04-11-2003



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11-24-02
U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

To the Honorable Commissioner of Patents and Trademarks

ached original documents or copy thereof.

1. Name of conveying party(ies):

CELGARD, INC.

11-28-02
Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: The Chase Manhattan Bank, as Administrative Agent

Internal Address: 1411 Broadway, 5th Fl.

New York, NY 10018

Street Address: 1411 Broadway, 5th Fl.

City: New York State: NY Zip: 10018

Additional name(s) address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance:

☐ Assignment

☐ Merger

☒ Security Agreement

☐ Change of Name

☐ Other

December 15, 1999

Execution Date:

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) 08/730571

B. Patent No.(s) 4216281

Additional number(s) attached ☒ Yes ☐ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: John M. Griem, Jr., Esq.

Internal Address: Milbank, Tweed, Hadley & McCloy LLP

Street Address: One Chase Manhattan Plaza

City: New York State: NY Zip: 10005

6. Total number of applications and patents involved: 92

7. Total fee (37 CFR 3.41) \$3,680

☐ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number:

13-3250

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document

John M. Griem, Jr.

Name of Person Signing

Signature

80

11-26-02
Date

Total number of pages including cover sheet, attachments, and document: 80

12/02/2002 DBYRNE 00000105 133250 08/730571

01 FC:8021

3680.00 CH

Documents to be recorded with required cover sheet information to:
Commissioner of Patent & Trademarks, Box Assignments
Washington, D.C. 20231

NY2:4486668

PATENT
REEL: 013964 FRAME: 0538

Continuation of Item 4

List of Patents

<u>Patent No.</u>	<u>Patent No.</u>	<u>Patent No.</u>
4910106	4438185	4255376
4997603	4405688	4346142
5043113	4541981	4311477
5328760	4973434	
5049275	5110326	
5013439	4620956	
4957620	4966707	
4973532	4938931	
5160627	4976897	
5449457	5102552	
5169529	5582735	
5952120	5618642	
4650730	5776630	
4731304	5773079	
5281491	5264304	
5240655	5384211	
5453333	5478677	
5264171	5389471	
5352361	4927772	
5186832	4734344	
5284584	4330602	
5667911	4403024	
5565281	4264691	
5691077	4228225	
5714072	4327164	
5695545	4286030	
5916647	4287276	
5938922	5605549	
4298666	4774365	
4359510	4257997	

Continuation of Item 4

List of Patent Applications

<u>Appln. No.</u>	<u>Appln. No.</u>	<u>Appln.. No.</u>
09/059126	09/041577	PCT/US98/17718
09/027709	09/265064	
09/134622	09/206351	
09/016024	09/168632	
09/105516	09/732531	
09/385933	09/006362	
09/296682	09/003653	
08/995205	09/101400	
09/041163	09/155952	
08/896513	08/979017	
09/441418	09/391247	
09/250116	09/043276	
09/046341	08/969235	

SECURITY AGREEMENT

SECURITY AGREEMENT dated as of December 15, 1999, between POLYPORE, INC., a corporation duly organized and validly existing under the laws of the State of Delaware (the "Company"); each of the Subsidiaries of the Company identified under the caption "SUBSIDIARY GUARANTORS" on the signature pages hereto (individually, a "Subsidiary Guarantor" and, collectively, the "Subsidiary Guarantors" and, together with the Company, the "Obligors"); and THE CHASE MANHATTAN BANK, as administrative agent for the lenders or other financial institutions or entities party, as lenders, to the Credit Agreement referred to below (in such capacity, together with its successors in such capacity, the "Administrative Agent").

The Company, the other "Borrowers" named therein, the Subsidiary Guarantors, certain lenders and the Administrative Agent are parties to a Credit Agreement dated as of December 15, 1999 (as modified and supplemented and in effect from time to time, the "Credit Agreement"), providing, subject to the terms and conditions thereof, for extensions of credit (by making of loans and issuing letters of credit) to be made by said lenders to said Borrowers in an aggregate principal or face amount not exceeding \$200,000,000. In addition, said Borrowers may from time to time be obligated to various of said lenders (or their affiliates) in respect of one or more Hedging Agreements under and as defined in the Credit Agreement.

To induce said lenders to enter into the Credit Agreement and to extend credit thereunder and to extend credit under Hedging Agreements, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Obligor has agreed to pledge and grant a security interest in the Collateral (as hereinafter defined) as security for the Secured Obligations (as so defined). Accordingly, the parties hereto agree as follows:

Section 1. Definitions. Terms defined in the Credit Agreement are used herein as defined therein. In addition, as used herein:

"Accounts" has the meaning assigned to such term in Section 3(d).

"Collateral" has the meaning assigned to such term in Section 3.

"Collateral Account" has the meaning assigned to such term in Section 4.01.

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"Copyright Collateral" means all Copyrights, whether now owned or hereafter acquired by any Obligor, including each Copyright identified in Annex 2.

"Copyrights" means all copyrights, copyright registrations and applications for copyright registrations, including, without limitation, all renewals and extensions thereof, the right to recover for all past, present and future infringements thereof, and all other rights of any kind whatsoever accruing thereunder or pertaining thereto.

"Documents" has the meaning assigned to such term in Section 3(j).

"Equipment" has the meaning assigned to such term in Section 3(h).

"Instruments" has the meaning assigned to such term in Section 3(e).

"Intellectual Property" means, collectively, all Copyright Collateral, all Patent Collateral and all Trademark Collateral, together with (a) all inventions, processes, production methods, proprietary information, know-how and trade secrets; (b) all licenses or user or other agreements granted to any Obligor with respect to any of the foregoing, in each case whether now or hereafter owned or used including, without limitation, the licenses or other agreements with respect to the Copyright Collateral, the Patent Collateral or the Trademark Collateral, listed in Annex 5; (c) all information, customer lists, identification of suppliers, data, plans, blueprints, specifications, designs, drawings, recorded knowledge, surveys, engineering reports, test reports, manuals, materials standards, processing standards, performance standards, catalogs, computer and automatic machinery software and programs; (d) all field repair data, sales data and other information relating to sales or service of products now or hereafter manufactured; (e) all accounting information and all media in which or on which any information or knowledge or data or records may be recorded or stored and all computer programs used for the compilation or printout of such information, knowledge, records or data; (f) all licenses, consents, permits, variances, certifications and approvals of governmental agencies now or hereafter held by any Obligor; and (g) all causes of action, claims and warranties now or hereafter owned or acquired by any Obligor in respect of any of the items listed above.

"Inventory" has the meaning assigned to such term in Section 3(f).

"Issuers" means, collectively, (a) the respective corporations, partnerships or other entities identified opposite the names of the Obligors on Annex 1 under the caption "Issuer" and (b) any other entity that shall at any time be a subsidiary of any of the Obligors.

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"Motor Vehicles" means motor vehicles, tractors, trailers and other like property, whether or not the title thereto is governed by a certificate of title or ownership.

"Patent Collateral" means all Patents, whether now owned or hereafter acquired by any Obligor, including each Patent identified in Annex 3.

"Patents" means all patents and patent applications, including, without limitation, the inventions and improvements described and claimed therein together with the reissues, divisions, continuations, renewals, extensions and continuations-in-part thereof, all income, royalties, damages and payments now or hereafter due and/or payable under and with respect thereto, including, without limitation, damages and payments for past or future infringements thereof, the right to sue for past, present and future infringements thereof, and all rights corresponding thereto throughout the world.

"Pledged Stock" has the meaning assigned to such term in Section 3(a).

"Secured Obligations" means, collectively, (a) in the case of the Company, the principal of and interest on the Loans made by the Lenders to the Company and all other amounts from time to time owing to the Lenders or the Administrative Agent by the Company under the Loan Documents (including, without limitation, (i) in respect of its Guarantee under Article III of the Credit Agreement and (ii) all LC Disbursements and interest thereon and all obligations of the Company to the Lenders or any of their affiliates in respect of Hedging Agreements), (b) in the case of each Subsidiary Guarantor, all obligations of the Subsidiary Guarantors under the Credit Agreement and the other Loan Documents (including, without limitation, in respect of its Guarantee under Article III of the Credit Agreement) and (c) in the case of each Obligor, all obligations of such Obligor to the Lenders and the Administrative Agent hereunder.

For the purposes hereof, it is understood that any Secured Obligations to a Person arising under an agreement entered into to at the time such Person (or its affiliate) is a "Lender" party the Credit Agreement shall nevertheless continue to constitute Secured Obligations for the purposes hereof, notwithstanding that such Person (or its affiliate) may have assigned all of its Loans, LC Disbursements or other interests in the Credit Agreement and, therefor, at the time a claim is to be made in respect of such Secured Obligations, such Person (or its affiliate) is no longer a "Lender" party to the Credit Agreement.

"Stock Collateral" has the meaning assigned to such term in Section 3(c).

"Trademark Collateral" means all Trademarks, whether now owned or hereafter acquired by any Obligor, including each Trademark identified in Annex 4.

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Notwithstanding the foregoing, the Trademark Collateral does not and shall not include any Trademark that would be rendered invalid, abandoned, void or unenforceable by reason of its being included as part of the Trademark Collateral.

"Trademarks" means all trade names, trademarks and service marks, logos, trademark and service mark registrations, and applications for trademark and service mark registrations, including, without limitation, all renewals of trademark and service mark registrations, all rights corresponding thereto throughout the world, the right to recover for all past, present and future infringements thereof, all other rights of any kind whatsoever accruing thereunder or pertaining thereto, together, in each case, with the product lines and goodwill of the business connected with the use of, and symbolized by, each such trade name, trademark and service mark.

"Uniform Commercial Code" means the Uniform Commercial Code as in effect from time to time in the State of New York.

Section 2. Representations and Warranties. Each Obligor represents and warrants to the Lenders and the Administrative Agent that:

(a) Ownership and Liens. Such Obligor is the sole beneficial owner of the Collateral in which it purports to grant a security interest pursuant to Section 3 and no Lien exists or will exist upon such Collateral at any time, except for liens permitted under Section 7.02 of the Credit Agreement and except for the pledge and security interest in favor of the Administrative Agent for the benefit of the Lenders created or provided for herein, which pledge and security interest will constitute a first priority perfected pledge and security interest in and to all of such Collateral (other than Intellectual Property registered or otherwise located outside of the United States of America) as soon as (i) with respect to the Collateral as to which the Uniform Commercial Code requires a filing of financing statements to perfect a security interest, all such financing statements are so filed and (ii) with respect to all Copyright Collateral, Trademark Collateral and Patent Collateral, all instruments and other documents required to be filed by any United States patent, trademark or copyright office to perfect a security interest in such Collateral are so filed.

(b) Status of Pledged Stock. The Pledged Stock represented by the certificates identified opposite the name of such Obligor in Annex 1 is, and all other Pledged Stock in which such Obligor shall hereafter grant a security interest pursuant to Section 3 will be, duly authorized, validly existing, fully paid and non-assessable and none of such Pledged Stock is or will be subject to any contractual restriction, or any restriction under the charter or by-laws of the respective Issuer of such Pledged Stock, upon the transfer of

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such Pledged Stock (except for any such restriction contained herein or in the Credit Agreement).

(c) No Other Stock. The Pledged Stock represented by the certificates identified under the name of such Obligor in Annex 1 constitutes (unless otherwise specified) all of the issued and outstanding shares of capital stock of any class of the Issuers beneficially owned by such Obligor on the date hereof (whether or not registered in the name of such Obligor) and Annex 1 correctly identifies, as at the date hereof, the respective Issuers of such Pledged Stock, the respective class and par value of the shares constituting such Pledged Stock and the respective number of shares (and registered owners thereof) represented by each such certificate.

(d) Copyrights, Patents and Trademarks. Annexes 2, 3 and 4, respectively, set forth under the name of such Obligor a complete and correct list of all registered and material unregistered Copyrights, Patents and Trademarks owned by such Obligor on the date hereof; except pursuant to licenses and other user agreements entered into by such Obligor in the ordinary course of business that are listed in Annex 5, such Obligor owns and possesses the right to use, and has done nothing to authorize or enable any other Person to use, any Copyright, Patent or Trademark listed in Annexes 2, 3 and 4, and all registrations listed in Annexes 2, 3 and 4 are valid and in full force and effect; except as may be set forth in Annex 5, such Obligor owns and possesses the right to use all Copyrights, Patents and Trademarks.

(e) Licenses. Annex 5 sets forth a complete and correct list of all licenses and other user agreements included in the Intellectual Property on the date hereof.

(f) No Violations in Respect of Copyrights, Patents and Trademarks. To such Obligor's knowledge, (i) except as set forth in Annex 5, there is no violation by others of any right of such Obligor with respect to any Copyright, Patent or Trademark listed in Annexes 2, 3 and 4, respectively, under the name of such Obligor and (ii) such Obligor is not infringing in any respect upon any Copyright, Patent or Trademark of any other Person; and no proceedings have been instituted or are pending against such Obligor or, to such Obligor's knowledge, threatened, and no claim against such Obligor has been received by such Obligor, alleging any such violation, except as may be set forth in Annex 5.

(g) Trademark Collateral. Such Obligor does not own any Trademarks registered in the United States of America to which the last sentence of the definition of Trademark Collateral applies.

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(h) Fair Labor Standards Act. Any goods now or hereafter produced by such Obligor or any of its Subsidiaries included in the Collateral have been and will be produced in compliance in all material respects with the requirements of the Fair Labor Standards Act, as amended.

Section 3. Collateral. As collateral security for the prompt payment in full when due (whether at stated maturity, by acceleration or otherwise) of the Secured Obligations, each Obligor hereby pledges and grants to the Administrative Agent, for the benefit of the Lenders as hereinafter provided, a security interest in all of such Obligor's right, title and interest in the following property, whether now owned by such Obligor or hereafter acquired and whether now existing or hereafter coming into existence (all being collectively referred to herein as "Collateral"):

(a) the shares of capital stock and other ownership interests of the Issuers represented by the certificates identified in Annex 1 under the name of such Obligor and all other shares of capital stock or other ownership interest of whatever class of the Issuers, and of any other Person in which the Obligors may hold any shares of stock or other ownership interest, now or hereafter owned by such Obligor, in each case together with the certificates evidencing the same (collectively, the "Pledged Stock");

(b) all shares, securities, moneys or property representing a dividend on any of the Pledged Stock, or representing a distribution or return of capital upon or in respect of the Pledged Stock, or resulting from a split-up, revision, reclassification or other like change of the Pledged Stock or otherwise received in exchange therefor, and any subscription warrants, rights or options issued to the holders of, or otherwise in respect of, the Pledged Stock;

(c) without affecting the obligations of such Obligor under any provision prohibiting such action hereunder or under the Credit Agreement, in the event of any consolidation or merger in which an Issuer is not the surviving entity, all shares of each class of the capital stock or other ownership interest of the successor entity (unless such successor entity is the Company) formed by or resulting from such consolidation or merger (the Pledged Stock, together with all other certificates, shares, securities, properties or moneys as may from time to time be pledged hereunder pursuant to clause (a) or (b) above and this clause (c) being herein collectively called the "Stock Collateral");

(d) all general intangibles (including payment intangibles and software) and accounts (each as defined in the Uniform Commercial Code) of such Obligor constituting any right to the payment of money, including (but not limited to) all moneys due and to

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become due to such Obligor in respect of any loans or advances or for Inventory or Equipment or other goods sold or leased or for services rendered, all moneys due and to become due to such Obligor under any guarantee (including a letter of credit) of the purchase price of Inventory or Equipment sold by such Obligor, all deposit accounts and all tax refunds (such accounts, general intangibles and moneys due and to become due being herein called collectively "Accounts");

(e) all instruments, chattel paper (whether tangible or electronic) or letters of credit (each as defined in the Uniform Commercial Code) of such Obligor evidencing, representing, arising from or existing in respect of, relating to, securing or otherwise supporting the payment of, any of the Accounts, including (but not limited to) promissory notes, drafts, bills of exchange and trade acceptances (herein collectively called "Instruments");

(f) all inventory (as defined in the Uniform Commercial Code) of such Obligor, including Motor Vehicles held by such Obligor for lease (including lease to Subsidiaries of the Obligors), fuel, tires and other spare parts, all goods obtained by such Obligor in exchange for such inventory, and any products made or processed from such inventory including all substances, if any, commingled therewith or added thereto (herein collectively called "Inventory");

(g) all Intellectual Property and all other accounts or general intangibles of such Obligor not constituting Intellectual Property or Accounts;

(h) all equipment (as defined in the Uniform Commercial Code) of such Obligor, including all Motor Vehicles (herein collectively called "Equipment");

(i) each contract and other agreement of such Obligor relating to the sale or other disposition of Inventory or Equipment;

(j) all documents of title (as defined in the Uniform Commercial Code) or other receipts of such Obligor covering, evidencing or representing Inventory or Equipment (herein collectively called "Documents");

(k) all rights, claims and benefits of such Obligor against any Person arising out of, relating to or in connection with Inventory or Equipment purchased by such Obligor, including, without limitation, any such rights, claims or benefits against any Person storing or transporting such Inventory or Equipment;

(l) all right, title and interest of such Obligor in, to and under the Acquisition Documents to which such Obligor is a party;

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(m) the balance from time to time in the Collateral Account; and

(n) all other tangible and intangible personal property and fixtures of such Obligor, to the maximum extent that a security interest can be granted in such personal property and fixtures, including, without limitation, all proceeds, products, offspring, accessions, rents, profits, income, benefits, substitutions and replacements of and to any of the property of such Obligor described in the preceding clauses of this Section 3 (including, without limitation, any proceeds of insurance thereon and all causes of action, claims and warranties now or hereafter held by any Obligor in respect of any of the items listed above) and, to the extent related to any property described in said clauses or such proceeds, products and accessions, all books, correspondence, credit files, records, invoices and other papers, including without limitation all tapes, cards, computer runs and other papers and documents in the possession or under the control of such Obligor or any computer bureau or service company from time to time acting for such Obligor;

EXCLUDING HOWEVER, (i) any of property of the Company located, or constituting Accounts arising out of the business of the Company, in the Federal Republic of Germany and (ii) in the case of any pledge of the shares of capital stock of a Foreign Subsidiary (other than French Holding), a number of the total issued and outstanding shares of voting common stock of each Foreign Subsidiary equal to 35% and (iii) all Class A shares of French Holding and 195 Class B shares of French Holding

The parties hereto contemplate that the pledge of shares of capital stock of French Holding provided above may be supplemented by a separate pledge agreement executed and delivered by the Company in favor of the Administrative Agent, which pledge agreement will provide for the pledge of such shares in accordance with the applicable requirements of the law of France; upon the execution and delivery of such pledge agreement (whether on the date hereof or thereafter), the provisions of such pledge agreement shall supersede in its entirety the provisions of this Agreement with respect to the shares of common stock of French Holding pledged by the Company hereunder.

Section 4. Cash Proceeds of Collateral.

4.01 Collateral Account. The Administrative Agent will cause to be established at a banking institution to be selected by the Administrative Agent a cash collateral account (the "Collateral Account"), which may be a "securities account" (as defined in Section 8-501 of the Uniform Commercial Code), in the name and under the sole dominion and control of the Administrative Agent (and, in the case of a securities account, in respect of which the Administrative Agent is the "entitlement holder" (as defined in Section 8-102(a)(7) of the

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Uniform Commercial Code)), into which there shall be deposited from time to time the cash proceeds of any of the Collateral (including proceeds of insurance thereon) required to be delivered to the Administrative Agent pursuant hereto and into which the Obligors may from time to time deposit any additional amounts that any of them wishes to pledge to the Administrative Agent for the benefit of the Lenders as additional collateral security hereunder or that, as provided in Section 2.04(k) of the Credit Agreement, they are required to pledge as additional collateral security hereunder. The balance from time to time in the Collateral Account shall constitute part of the Collateral hereunder and shall not constitute payment of the Secured Obligations until applied as hereinafter provided. Except as expressly provided in the next sentence, the Administrative Agent shall remit the collected balance standing to the credit of the Collateral Account to or upon the order of the respective Obligor as such Obligor through the Company shall from time to time instruct. However, at any time following the occurrence and during the continuance of an Event of Default, the Administrative Agent may (and, if instructed by the Lenders as specified in the Credit Agreement, shall) in its (or their) discretion apply or cause to be applied (subject to collection) the balance from time to time standing to the credit of the Collateral Account to the payment of the Secured Obligations in the manner specified in Section 5.09. The balance from time to time in the Collateral Account shall be subject to withdrawal only as provided herein.

4.02 Proceeds of Accounts. Each Obligor shall instruct all account debtors and other Persons obligated in respect of all Accounts to make all payments in respect of the Accounts either (a) directly to the Administrative Agent (by instructing that such payments be remitted to a post office box which shall be in the name and under the control of the Administrative Agent) or (b) to one or more other banks in the United States of America (by instructing that such payments be remitted to a post office box which shall be in the name and under the control of the Administrative Agent) under arrangements, in form and substance satisfactory to the Administrative Agent, pursuant to which such Obligor shall have irrevocably instructed such other bank (and such other bank shall have agreed) to remit all proceeds of such payments directly to the Administrative Agent for deposit into the Collateral Account. All payments made to the Administrative Agent, as provided in the preceding sentence, shall be immediately deposited in the Collateral Account. In addition to the foregoing, each Obligor agrees that if the proceeds of any Collateral hereunder (including the payments made in respect of Accounts) shall be received by it, such Obligor shall as promptly as possible deposit such proceeds into the Collateral Account. Until so deposited, all such proceeds shall be held in trust by such Obligor for and as the property of the Administrative Agent and shall not be commingled with any other funds or property of such Obligor.

4.03 Investment of Balance in Collateral Account. The cash balance standing to the credit of the Collateral Account shall be invested from time to time in such Permitted Investments as the respective Obligor through the Company (or, after the occurrence and during the continuance of a Default, the Administrative Agent) shall determine, which Permitted

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Investments shall be held in the name and be under the control of the Administrative Agent (and, if the Collateral Account is a securities account, credited to the Collateral Account), provided that at any time after the occurrence and during the continuance of an Event of Default, the Administrative Agent may (and, if instructed by the Lenders as specified in the Credit Agreement, shall) in its (or their) discretion at any time and from time to time elect to liquidate any such Permitted Investments and to apply or cause to be applied the proceeds thereof to the payment of the Secured Obligations in the manner specified in Section 5.09.

4.04 Cover for LC Exposure. Amounts deposited into the Collateral Account as cover for LC Exposure under the Credit Agreement pursuant to Section 2.06(k) thereof shall be held by the Administrative Agent in a separate sub-account (designated "LC Exposure Sub-Account") and all amounts held in such sub-account shall constitute collateral security first for the LC Exposure outstanding from time to time and second as collateral security for the other Secured Obligations hereunder.

Section 5. Further Assurances; Remedies. In furtherance of the grant of the pledge and security interest pursuant to Section 3, the Obligors hereby jointly and severally agree with each Lender and the Administrative Agent as follows:

5.01 Delivery and Other Perfection. Each Obligor shall:

(a) if any of the shares, securities, moneys or property required to be pledged by such Obligor under clauses (a), (b) and (c) of Section 3 are received by such Obligor, forthwith either (x) transfer and deliver to the Administrative Agent such shares or securities so received by such Obligor (together with the certificates for any such shares and securities duly endorsed in blank or accompanied by undated stock powers duly executed in blank), all of which thereafter shall be held by the Administrative Agent, pursuant to the terms of this Agreement, as part of the Collateral or (y) take such other action as the Administrative Agent shall deem necessary or appropriate to duly record the Lien created hereunder in such shares, securities, moneys or property in said clauses (a), (b) and (c);

(b) deliver and pledge to the Administrative Agent any and all Instruments, endorsed and/or accompanied by such instruments of assignment and transfer in such form and substance as the Administrative Agent may request; provided, that so long as no Event of Default shall have occurred and be continuing, such Obligor may retain for collection in the ordinary course any Instruments received by such Obligor in the ordinary course of business and the Administrative Agent shall, promptly upon request of such Obligor through the Company, make appropriate arrangements for making any Instrument pledged by such Obligor available to such Obligor for purposes of

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presentation, collection or renewal (any such arrangement to be effected, to the extent deemed appropriate by the Administrative Agent, against trust receipt or like document);

(c) give, execute, deliver, file and/or record any financing statement, notice, instrument, document, agreement or other papers that may be necessary or desirable (in the judgment of the Administrative Agent) to create, preserve, perfect or validate the security interest granted pursuant hereto or to enable the Administrative Agent to exercise and enforce its rights hereunder with respect to such pledge and security interest, including, without limitation, causing any or all of the Stock Collateral to be transferred of record into the name of the Administrative Agent or its nominee (and the Administrative Agent agrees that if any Stock Collateral is transferred into its name or the name of its nominee, the Administrative Agent will thereafter promptly give to the respective Obligor copies of any notices and communications received by it with respect to the Stock Collateral pledged by such Obligor hereunder), provided that notices to account debtors in respect of any Accounts or Instruments shall be subject to the provisions of clause (i) below;

(d) without limiting the obligations of such Obligor under Section 5.04(c), upon the request of the Administrative Agent, cause the Administrative Agent to be listed as the lienholder on certificates of title covering any Motor Vehicles and within 120 days of such request, and to deliver evidence of the same to the Administrative Agent;

(e) keep full and accurate books and records relating to the Collateral, and stamp or otherwise mark such books and records in such manner as the Administrative Agent may reasonably require in order to reflect the security interests granted by this Agreement;

(f) furnish to the Administrative Agent from time to time (but, unless a Default shall have occurred and be continuing, no more frequently than quarterly) statements and schedules further identifying and describing the Copyright Collateral, the Patent Collateral and the Trademark Collateral, respectively, and such other reports in connection with the Copyright Collateral, the Patent Collateral and the Trademark Collateral as the Administrative Agent may reasonably request, all in reasonable detail;

(g) promptly upon request of the Administrative Agent, following receipt by the Administrative Agent of any statements, schedules or reports pursuant to clause (f) above, modify this Agreement by amending Annexes 2, 3 and/or 4, as the case may be, to include any Copyright, Patent or Trademark that becomes part of the Collateral under this Agreement;

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(h) permit representatives of the Administrative Agent, upon reasonable notice, at any time during normal business hours to inspect and make abstracts from its books and records pertaining to the Collateral, and permit representatives of the Administrative Agent to be present at such Obligor's place of business to receive copies of all communications and remittances relating to the Collateral, and forward copies of any notices or communications received by such Obligor with respect to the Collateral, all in such manner as the Administrative Agent may require; and

(i) upon the occurrence and during the continuance of any Event of Default, upon request of the Administrative Agent, promptly notify (and such Obligor hereby authorizes the Administrative Agent so to notify) each account debtor in respect of any Accounts or Instruments that such Collateral has been assigned to the Administrative Agent hereunder, and that any payments due or to become due in respect of such Collateral are to be made directly to the Administrative Agent.

5.02 Other Financing Statements and Liens. Except as otherwise permitted under Section 7.02 of the Credit Agreement, without the prior written consent of the Administrative Agent (granted with the authorization of the Lenders as specified in the Credit Agreement), no Obligor shall file or suffer to be on file, or authorize or permit to be filed or to be on file, in any jurisdiction, any financing statement or like instrument with respect to the Collateral in which the Administrative Agent is not named as the sole secured party for the benefit of the Lenders.

5.03 Preservation of Rights. The Administrative Agent shall not be required to take steps necessary to preserve any rights against prior parties to any of the Collateral.

5.04 Special Provisions Relating to Certain Collateral.

(a) Stock Collateral.

(1) Except with respect to a Foreign Subsidiary, the Obligors will cause the Stock Collateral to constitute at all times 100% of the total number of shares of each class of capital stock of each Issuer then outstanding. With respect to any Issuer that is a Foreign Subsidiary, the Obligors will cause the Stock Collateral to constitute at all times not less than 65% of the total number of shares of voting common stock, and 100% of all other shares of capital stock, of such Issuer then outstanding.

(2) So long as no Event of Default shall have occurred and be continuing, the Obligors shall have the right to exercise all voting, consensual and other powers of ownership pertaining to the Stock Collateral for all purposes not inconsistent with the terms of this Agreement, the Credit Agreement or any other instrument or agreement referred to herein or therein, provided that the Obligors jointly and severally agree that they will not vote the Stock

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Collateral in any manner that is inconsistent with the terms of this Agreement, the Credit Agreement or any such other instrument or agreement; and the Administrative Agent shall execute and deliver to the Obligors or cause to be executed and delivered to the Obligors all such proxies, powers of attorney, dividend and other orders, and all such instruments, without recourse, as the Obligors may reasonably request for the purpose of enabling the Obligors to exercise the rights and powers that they are entitled to exercise pursuant to this Section 5.04(a)(2).

(3) Unless and until an Event of Default has occurred and is continuing, the Obligors shall be entitled to receive and retain any dividends on the Stock Collateral paid in cash out of earned surplus.

(4) If any Event of Default shall have occurred, then so long as such Event of Default shall continue, and whether or not the Administrative Agent or any Lender exercises any available right to declare any Secured Obligation due and payable or seeks or pursues any other relief or remedy available to it under applicable law or under this Agreement, the Credit Agreement or any other agreement relating to such Secured Obligation, all dividends and other distributions on the Stock Collateral shall be paid directly to the Administrative Agent and retained by it in the Collateral Account as part of the Stock Collateral, subject to the terms of this Agreement, and, if the Administrative Agent shall so request in writing, each Obligor agrees to execute and deliver to the Administrative Agent appropriate additional dividend, distribution and other orders and documents to that end, provided that if such Event of Default is cured, any such dividend or distribution theretofore paid to the Administrative Agent shall, upon request of such Obligor (except to the extent theretofore applied to the Secured Obligations), be returned by the Administrative Agent to such Obligor.

(b) Intellectual Property.

(1) For the purpose of enabling the Administrative Agent to exercise rights and remedies under Section 5.05 at such time as the Administrative Agent shall be lawfully entitled to exercise such rights and remedies, and for no other purpose, each Obligor hereby grants to the Administrative Agent, to the extent assignable, an irrevocable, non-exclusive license (exercisable without payment of royalty or other compensation to such Obligor) to use, assign, license or sublicense any of the Intellectual Property now owned or hereafter acquired by such Obligor, wherever the same may be located, including in such license reasonable access to all media in which any of the licensed items may be recorded or stored and to all computer programs used for the compilation or printout thereof.

(2) Notwithstanding anything contained herein to the contrary, but subject to the provisions of Section 7.03 of the Credit Agreement that limit the rights of the Obligors to dispose of their property, so long as no Event of Default shall have occurred and be continuing, the

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Obligors will be permitted to exploit, use, enjoy, protect, license, sublicense, assign, sell, dispose of or take other actions with respect to the Intellectual Property in the ordinary course of the business of the Obligors. In furtherance of the foregoing, unless an Event of Default shall have occurred and be continuing the Administrative Agent shall from time to time, upon the request of the respective Obligor, execute and deliver any instruments, certificates or other documents, in the form so requested, that such Obligor through the Company shall have certified are appropriate (in its judgment) to allow it to take any action permitted above (including relinquishment of the license provided pursuant to clause (1) immediately above as to any specific Intellectual Property). Further, upon the payment in full of all of the Secured Obligations (other than contingent indemnification obligations) and cancellation or termination of the Commitments and LC Exposure or earlier expiration of this Agreement or release of the Collateral, the Administrative Agent shall grant back to the Obligors the license granted pursuant to clause (1) immediately above. The exercise of rights and remedies under Section 5.05 by the Administrative Agent shall not terminate the rights of the holders of any licenses or sublicenses theretofore granted by the Obligors in accordance with the first sentence of this clause (2).

(c) Motor Vehicles.

(1) At any time after the occurrence and during the continuance of an Event of Default, each Obligor, shall, upon the request of the Administrative Agent, deliver to the Administrative Agent originals of the certificates of title or ownership for the Motor Vehicles owned by it with the Administrative Agent listed as lienholder and take such other action as the Administrative Agent shall deem appropriate to perfect the security interest created hereunder in all such Motor Vehicles; provided, however, if the Motor Vehicle to be acquired is subject to a purchase money security interest, the Administrative Agent shall be listed as a junior lienholder to the Person holding such purchase money security interest.

(2) Without limiting Section 5.10, each Obligor hereby appoints the Administrative Agent as its attorney-in-fact, effective the date hereof and terminating upon the termination of this Agreement, for the purpose of (i) executing on behalf of such Obligor title or ownership applications for filing with appropriate state agencies to enable Motor Vehicles now owned or hereafter acquired by such Obligor to be retitled and the Administrative Agent listed as lienholder thereon, (ii) filing such applications with such state agencies and (iii) executing such other documents and instruments on behalf of, and taking such other action in the name of, such Obligor as the Administrative Agent may deem necessary or advisable to accomplish the purposes hereof (including, without limitation, the purpose of creating in favor of the Administrative Agent a perfected lien on the Motor Vehicles and exercising the rights and remedies of the Administrative Agent under Section 5.05). This appointment as attorney-in-fact is irrevocable and coupled with an interest.

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(3) Any certificates of title or ownership delivered pursuant to the terms hereof shall be accompanied by odometer statements for each Motor Vehicle covered thereby.

5.05 Events of Default, Etc. During the period during which an Event of Default shall have occurred and be continuing:

(a) each Obligor shall, at the request of the Administrative Agent, assemble the Collateral owned by it at such place or places, reasonably convenient to both the Administrative Agent and such Obligor, designated in its request;

(b) the Administrative Agent may make any reasonable compromise or settlement deemed desirable with respect to any of the Collateral and may extend the time of payment, arrange for payment in installments, or otherwise modify the terms of, any of the Collateral;

(c) the Administrative Agent shall have all of the rights and remedies with respect to the Collateral of a secured party under the Uniform Commercial Code (whether or not said Code is in effect in the jurisdiction where the rights and remedies are asserted) and such additional rights and remedies to which a secured party is entitled under the laws in effect in any jurisdiction where any rights and remedies hereunder may be asserted, including, without limitation, the right, to the maximum extent permitted by law, to exercise all voting, consensual and other powers of ownership pertaining to the Collateral as if the Administrative Agent were the sole and absolute owner thereof (and each Obligor agrees to take all such action as may be appropriate to give effect to such right);

(d) the Administrative Agent in its discretion may, in its name or in the name of the Obligors or otherwise, demand, sue for, collect or receive any money or property at any time payable or receivable on account of or in exchange for any of the Collateral, but shall be under no obligation to do so; and

(e) the Administrative Agent may, upon ten Business Days' prior written notice to the Obligors of the time and place, with respect to the Collateral or any part thereof that shall then be or shall thereafter come into the possession, custody or control of the Administrative Agent, the Lenders or any of their respective agents, sell, lease, assign or otherwise dispose of all or any part of such Collateral, at such place or places as the Administrative Agent deems best, and for cash or for credit or for future delivery (without thereby assuming any credit risk), at public or private sale, without demand of performance or notice of intention to effect any such disposition or of the time or place thereof (except such notice as is required above or by applicable statute and cannot be waived), and the Administrative Agent or any Lender or anyone else may be the

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purchaser, lessee, assignee or recipient of any or all of the Collateral so disposed of at any public sale (or, to the extent permitted by law, at any private sale) and thereafter hold the same absolutely, free from any claim or right of whatsoever kind, including any right or equity of redemption (statutory or otherwise), of the Obligors, any such demand, notice and right or equity being hereby expressly waived and released. In the event of any sale, assignment, or other disposition of any of the Trademark Collateral, the goodwill connected with and symbolized by the Trademark Collateral subject to such disposition shall be included, and the Obligors shall supply to the Administrative Agent or its designee, for inclusion in such sale, assignment or other disposition, all Intellectual Property relating to such Trademark Collateral. The Administrative Agent may, without notice or publication, adjourn any public or private sale or cause the same to be adjourned from time to time by announcement at the time and place fixed for the sale, and such sale may be made at any time or place to which the sale may be so adjourned.

The proceeds of each collection, sale or other disposition under this Section 5.05, including by virtue of the exercise of the license granted to the Administrative Agent in Section 5.04(b), shall be applied in accordance with Section 5.09.

The Obligors recognize that, by reason of certain prohibitions contained in the Securities Act of 1933, as amended, and applicable state securities laws, the Administrative Agent may be compelled, with respect to any sale of all or any part of the Collateral, to limit purchasers to those who will agree, among other things, to acquire the Collateral for their own account, for investment and not with a view to the distribution or resale thereof. The Obligors acknowledge that any such private sales may be at prices and on terms less favorable to the Administrative Agent than those obtainable through a public sale without such restrictions, and, notwithstanding such circumstances, agree that any such private sale shall be deemed to have been made in a commercially reasonable manner and that the Administrative Agent shall have no obligation to engage in public sales and no obligation to delay the sale of any Collateral for the period of time necessary to permit the respective Issuer or issuer thereof to register it for public sale.

5.06 Deficiency. If the proceeds of sale, collection or other realization of or upon the Collateral pursuant to Section 5.05 are insufficient to cover the costs and expenses of such realization and the payment in full of the Secured Obligations, the Obligors shall remain liable for any deficiency to the extent the Obligors are obligated under this Agreement.

5.07 Removals, Etc. Without at least 30 days' prior written notice to the Administrative Agent, no Obligor shall (i) maintain any of its books and records with respect to the Collateral at any office, or maintain its principal place of business at any place, or permit any Inventory or Equipment to be located anywhere, other than at the address indicated beneath the signature of the Company to the Credit Agreement or at one of the locations identified in

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Annex 6 under its name or in transit from one of such locations to another or (ii) change its name, or the name under which it does business, from the name shown on the signature pages hereto.

5.08 Private Sale. The Administrative Agent and the Lenders shall incur no liability as a result of the sale of the Collateral, or any part thereof, at any private sale pursuant to Section 5.05 conducted in a commercially reasonable manner. Each Obligor hereby waives any claims against the Administrative Agent or any Lender arising by reason of the fact that the price at which the Collateral may have been sold at such a private sale was less than the price that might have been obtained at a public sale or was less than the aggregate amount of the Secured Obligations, even if the Administrative Agent accepts the first offer received and does not offer the Collateral to more than one offeree.

5.09 Application of Proceeds. Except as otherwise herein expressly provided and except as provided below in this Section 5.09, the proceeds of any collection, sale or other realization of all or any part of the Collateral pursuant hereto, and any other cash at the time held by the Administrative Agent under Section 4 or this Section 5, and (as provided in the respective German Security Documents) the proceeds of any collection, sale or other realization upon any collateral security pursuant to any German Security Document, shall be applied by the Administrative Agent:

First, to the payment of the costs and expenses of such collection, sale or other realization, including reasonable out-of-pocket costs and expenses of the Administrative Agent and the fees and expenses of its agents and counsel, and all expenses incurred and advances made by the Administrative Agent in connection therewith;

Next, to the payment in full of the Secured Obligations, in each case equally and ratably in accordance with the respective amounts thereof then due and owing or as the Lenders holding the same may otherwise agree; and

Finally, to the payment to the respective Obligor, or their respective successors or assigns, or as a court of competent jurisdiction may direct, of any surplus then remaining.

Notwithstanding the foregoing, the proceeds of any cash or other amounts held in the "LC Exposure Sub-Account" of the Collateral Account pursuant to Section 4.04 shall be applied first to the LC Exposure outstanding from time to time and second to the other Secured Obligations in the manner provided above in this Section 5.09.

As used in this Section 5, "proceeds" of Collateral means cash, securities and other property realized in respect of, and distributions in kind of, Collateral, including any

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thereof received under any reorganization, liquidation or adjustment of debt of the Obligor or any issuer of or obligor on any of the Collateral.

5.10 Attorney-in-Fact. Without limiting any rights or powers granted by this Agreement to the Administrative Agent while no Event of Default has occurred and is continuing, upon the occurrence and during the continuance of any Event of Default the Administrative Agent is hereby appointed the attorney-in-fact of each Obligor for the purpose of carrying out the provisions of this Section 5 and taking any action and executing any instruments that the Administrative Agent may deem necessary or advisable to accomplish the purposes hereof, which appointment as attorney-in-fact is irrevocable and coupled with an interest. Without limiting the generality of the foregoing, so long as the Administrative Agent shall be entitled under this Section 5 to make collections in respect of the Collateral, the Administrative Agent shall have the right and power to receive, endorse and collect all checks made payable to the order of any Obligor representing any dividend, payment or other distribution in respect of the Collateral or any part thereof and to give full discharge for the same.

5.11 Perfection. Prior to or concurrently with the execution and delivery of this Agreement, each Obligor shall (i) execute and deliver for filing such financing statements and other documents in such offices as the Administrative Agent may request to perfect the security interests granted by Section 3 of this Agreement and (ii) deliver to the Administrative Agent all certificates identified in Annex 1, accompanied by undated stock powers duly executed in blank.

5.12 Termination. When all Secured Obligations (other than contingent indemnification obligations) shall have been paid in full and the Commitments of the Lenders under the Credit Agreement and all LC Exposure shall have expired or been terminated, this Agreement shall terminate, and the Administrative Agent shall forthwith cause to be assigned, transferred and delivered, against receipt but without any recourse, warranty or representation whatsoever, any remaining Collateral and money received in respect thereof, to or on the order of the respective Obligor and to be released and canceled all licenses and rights referred to in Section 5.04(b). The Administrative Agent shall also execute and deliver to the respective Obligor upon such termination such Uniform Commercial Code termination statements, certificates for terminating the Liens on the Motor Vehicles and such other documentation as shall be reasonably requested by the respective Obligor to effect the termination and release of the Liens on the Collateral.

5.13 Further Assurances. Each Obligor agrees that, from time to time upon the written request of the Administrative Agent, such Obligor will execute and deliver such further documents and do such other acts and things as the Administrative Agent may reasonably request in order fully to effect the purposes of this Agreement (including, without limitation, in order to create or perfect, in favor of the Administrative Agent and the Lenders, liens with respect to Intellectual Property in foreign countries).

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Section 6. Miscellaneous.

6.01 Notices. All notices, requests, consents and demands hereunder shall be in writing and telecopied or delivered to the intended recipient at its "Address for Notices" specified pursuant to Section 10.01 of the Credit Agreement and shall be deemed to have been given at the times specified in said Section 10.01.

6.02 No Waiver. No failure on the part of the Administrative Agent or any Lender (or any agent of any thereof) to exercise, and no course of dealing with respect to, and no delay in exercising, any right, power or remedy hereunder shall operate as a waiver thereof; nor shall any single or partial exercise by the Administrative Agent or any Lender (or any agent of any thereof) of any right, power or remedy hereunder preclude any other or further exercise thereof or the exercise of any other right, power or remedy. The remedies herein are cumulative and are not exclusive of any remedies provided by law.

6.03 Amendments, Etc. The terms of this Agreement may be waived, altered or amended only by an instrument in writing duly executed by each Obligor and the Administrative Agent (with the consent of the Lenders as specified in the Credit Agreement). Any such amendment or waiver shall be binding upon the Administrative Agent and each Lender, each holder of any of the Secured Obligations and each Obligor.

6.04 Expenses. The Obligors jointly and severally agree to reimburse each of the Lenders and the Administrative Agent for all reasonable costs and expenses of the Lenders and the Administrative Agent (including, without limitation, the reasonable fees and expenses of legal counsel) in connection with (i) any Default and any enforcement or collection proceeding resulting therefrom, including, without limitation, all manner of participation in or other involvement with (w) performance by the Administrative Agent of any obligations of the Obligors in respect of the Collateral that the Obligors have failed or refused to perform, (x) bankruptcy, insolvency, receivership, foreclosure, winding up or liquidation proceedings, or any actual or attempted sale, or any exchange, enforcement, collection, compromise or settlement in respect of any of the Collateral, and for the care of the Collateral and defending or asserting rights and claims of the Administrative Agent in respect thereof, by litigation or otherwise, including expenses of insurance, (y) judicial or regulatory proceedings and (z) workout, restructuring or other negotiations or proceedings (whether or not the workout, restructuring or transaction contemplated thereby is consummated) and (ii) the enforcement of this Section 6.04, and all such costs and expenses shall be Secured Obligations entitled to the benefits of the collateral security provided pursuant to Section 3.

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6.05 Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the respective successors and assigns of each Obligor, the Administrative Agent, the Lenders and each holder of any of the Secured Obligations (provided, however, that no Obligor shall assign or transfer its rights or obligations hereunder without the prior written consent of the Administrative Agent).

6.06 Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument and any of the parties hereto may execute this Agreement by signing any such counterpart.

6.07 Governing Law. This Agreement shall be governed by, and construed in accordance with, the law of the State of New York.

6.08 Captions. The captions and section headings appearing herein are included solely for convenience of reference and are not intended to affect the interpretation of any provision of this Agreement.

6.09 Agents and Attorneys-in-Fact. The Administrative Agent may employ agents and attorneys-in-fact in connection herewith and shall not be responsible for the negligence or misconduct of any such agents or attorneys-in-fact selected by it in good faith.

6.10 Severability. If any provision hereof is invalid and unenforceable in any jurisdiction, then, to the fullest extent permitted by law, (a) the other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in favor of the Administrative Agent and the Lenders in order to carry out the intentions of the parties hereto as nearly as may be possible and (b) the invalidity or unenforceability of any provision hereof in any jurisdiction shall not affect the validity or enforceability of such provision in any other jurisdiction.

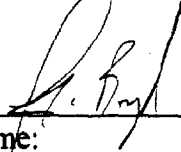
6.11 Additional Obligors. As contemplated in Section 6.11(a) of the Credit Agreement, any new Domestic Subsidiary formed or acquired after the date hereof shall become a "Subsidiary Guarantor" under the Credit Agreement and an "Obligor" under this Agreement, by executing and delivering to the Administrative Agent a Guarantee Assumption Agreement in the form of Exhibit C to the Credit Agreement. Accordingly, upon the execution and delivery of any such Guarantee Assumption Agreement by any such Subsidiary, such new Subsidiary shall automatically and immediately, and without any further action on the part of any Person, become an "Obligor" for all purposes of this Agreement, and each of the Annexes hereto shall be supplemented in the manner specified in such Guarantee Assumption Agreement.

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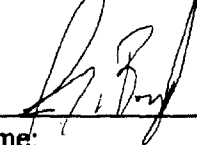
IN WITNESS WHEREOF, the parties hereto have caused this Security Agreement to be duly executed and delivered as of the day and year first above written.

POLYPORE, INC.

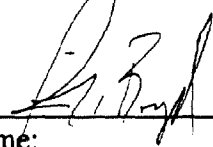
By 
Name:
Title:

SUBSIDIARY GUARANTORS

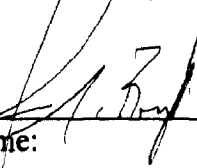
CELGARD, INC.

By 
Name:
Title:

DARAMIC, INC.

By 
Name:
Title:

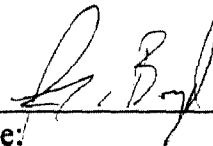
DARAMIC ASIA, INC.

By 
Name:
Title:

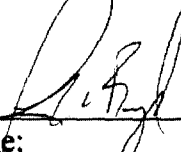
Security Agreement

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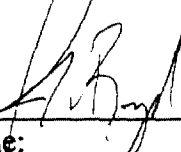
DARAMIC GROUP INTERNATIONAL, INC.

By 
Name:
Title:

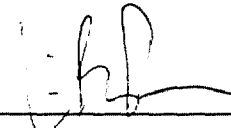
DARAMIC INTERNATIONAL, INC.

By 
Name:
Title:

POLYPORE HOLDINGS, INC.

By 
Name:
Title:

THE CHASE MANHATTAN BANK,
as Administrative Agent

By 
Name:
Title:

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PATENT
REEL: 013964 FRAME: 0562

**LIST OF COPYRIGHTS, COPYRIGHT REGISTRATIONS AND
APPLICATIONS FOR COPYRIGHT REGISTRATIONS**

[See Section 2(d).]

CELGARD, Inc.

<u>Title</u>	<u>Date Filed</u>	<u>Registration No.</u>	<u>Effective Date</u>
Microporous Hollow Fiber Module-Degas Design	9/19/95	TXu 703-656	9/22/95

Annex 2 to Security Agreement

ANNEX 3

LIST OF PATENTS AND PATENT APPLICATIONS

[See Section 2(d).]

CELGARD, Inc.

<u>FILE</u>	<u>PATENT</u>	<u>COUNTRY</u>	<u>REGISTRATION NO.</u>	(Filed) <u>DATE</u>
1016	1231810	CANA	456557	14JE1984
1016	129420	FRAN	84304042.9	15JE1984
1016	129420	GBRI	84304042.9	15JE1984
1016	P3482377.8	GERM	84304042.9	15JE1984
1016	1804088	JAPA	123896/84	18JE1984
1016	NI-23451	TAIW	73102507	21JE1984
1265	356045	BELG	89307906.1	03AU1989
1265	356045	FRAN	89307906.1	03AU1989
1265	356045	GBRI	89307906.1	03AU1989
1265	68924224.7	GERM	89307906.1	03AU1989
1265	356045	ITAL	89307906.1	03AU1989
1265	2816449	JAPA	202713/1989	04AU1989
1265	67552	KORS	11172/1989	04AU1989
1265	356045	NETH	89307906.1	03AU1989
1265	2078240-3	SPAI	356045	03AU1989
1265	356045	SWIT	89307906.1	03AU1989
1265	4910106	USA	228883	03AU1988
1265	4997603	USA	437052	15NO1989
1265	5043113	USA	558992	27JL1990
1288	378346	BELG	90300200.4	08JA1990
1288	2007160	CANA	2007160	04JA1990
1288	378346	FRAN	90300200.4	08JA1990

2000-30	JAPA	8637/1999	18JA1999
2000-30	KORS	55651/1998	17DE1998
2000-30	TAIW	87119915	01DE1998
2000-30	USA	09/016024	30JA1998
2000-41	CANA	2273127	27MY1999
2000-41	EPC	99111843.1	19JE1999
2000-41	JAPA	178144/1999	24JE1999
2000-41	KORS	24275/1999	25JE1999
2000-41	TAIW	88108744	27MY1999
2000-41	USA	09/105516	26JE1998
2000-42	USA	09/385933	30AU1999
2000-47	USA	09/296682	20AP1999
2000-5	CANA	2245394	24AU1998
2000-5	EPC	98120792.1	03NO1998
2000-5	JAPA	323302/1998	13NO1998
2000-5	KORS	46084/1998	30OC1998
2000-5	TAIW	87113820	21AU1998
2000-5	USA	PENDING	11OC1999
2000-8	CANA	2253017	05NO1998
2000-8	EPC	98123315.8	08DE1998
2000-8	JAPA	359899/1998	18DE1998
2000-8	KORS	55397/1998	16DE1998
2000-8	TAIW	87118270	03NO1998
2000-8	USA	08/995205	19DE1997
2000-9	CANA	2259786	19JA1999
2000-9	EPC	99104437.1	05MR1999
2000-9	JAPA	66702/1999	12MR1999
2000-9	KORS	4792/1999	11FE1999
2000-9	TAIW	88100519	14JA1999
2000-9	USA	09/041163	12MR1998
2001	ATRA	89304769.6	11MY1989
2001	BELG	89304769.6	11MY1989
2001	FRAN	89304769.6	11MY1989

342026
342026
342026

2001	342026	GBRI	89304769.6	11MY1989
2001	68924552.1	GERM	89304769.6	11MY1989
2001	342026	ITAL	89304769.6	11MY1989
2001	2128906	JAPA	117607/1989	12MY1989
2001	74824	KORS	6428/1989	11MY1989
2001	342026	NETH	89304769.6	11MY1989
2001	2079377-4	SPAI	342026	11MY1989
2001	342026	SWED	89304769.6	11MY1989
2001	342026	SWIT	89304769.6	11MY1989
2001	NI-44755	TAIW	78103729	16MY1989
2001	5013439	USA	433450	09NO1989
2002	4957620	USA	271449	15NO1988
2003	391694	BELG	90303626.7	04AP1990
2003	391694	FRAN	90303626.7	04AP1990
2003	391694	GBRI	90303626.7	04AP1990
2003	69014148.3	GERM	90303626.7	04AP1990
2003	391694	ITAL	90303626.7	04AP1990
2003	2032395	JAPA	91326/90	05AP1990
2003	89010	KORS	4657/1990	04AP1990
2003	391694	NETH	90303626.7	04AP1990
2003	2064617-8	SPAI	391694	04AP1990
2003	391694	SWIT	90303626.7	04AP1990
2003	NI-35447	TAIW	78102913	19AP1989
2003	4973532	USA	333662	05AP1989
2005	5160627	USA	815297	27DE1991
2008	5449457	USA	688178	22AP1991
2009	5169529	USA	688180	22AP1991
201-046		CANA	2233052	25MR1998
201-046		EPC	98106208.6	04AP1998
201-046		JAPA	102299/1998	14AP1998
201-046		KORS	12581/1998	09AP1998
201-046		TAIW	87104866	01AP1998
201-046	5952120	USA	08/839664	15AP1997

201-064	579728	ASTL	56764/86	28AP1986
201-064	0201875	BELG	86106322.0	09MY1986
201-064	1266504	CANA	508195	02MY1986
201-064	0201875	FRAN	86106322.0	09MY1986
201-064	0201875	GBRI	86106322.0	09MY1986
201-064	P3681195.5	GERM	86106322.0	09MY1986
201-064	2108985	JAPA	109712/86	15MY1986
201-064	53702	KORS	3703/1986	13MY1986
201-064	0201875	SWIT	86106322.0	09MY1986
201-064	4650730	USA	06/734431	16MY1985
201-064	2714605	JAPA	97462/96	27MR1996
201-064	4731304	USA	06/937241	03DE1986
201-064		JAPA	117416/97	22AP1997
201-065		CANA	2126316	18DE1992
201-065		EPC	93901174.8	18DE1992
201-065		JAPA	25844/92	17JA1992
201-065		KORS	94-702178	18DE1992
201-065	NI-65908	TAIW	82100420	21JA1993
201-065	5281491	USA	07/808591	20DE1991
201-066		JAPA	25850/92	17JA1992
201-066	5240655	USA	07/808592	20DE1991
201-070		CANA	2085380	15DE1992
201-070	0550262	FRAN	92311791.5	24DE1992
201-070	0550262	GBRI	92311791.5	24DE1992
201-070	P69218750.2	GERM	92311791.5	24DE1992
201-070		KORS	92-25660	24DE1992
201-070	NI-65483	TAIW	82100048	06JA1993
201-070	5453333	USA	07/992181	17DE1992
201-071		JAPA	23362/94	24JA1994
201-084		USA	08/896513	22JE1997
201-084		USA	09/441418	16NO1999
2013	652878	ASTL	30506/92	31DE1992
2013	2085818	CANA	2085818	18DE1992

2025	718901	GBRI	95119694.8	14DE1995
2025	718901	GERM	95119694.8	14DE1995
2025		JAPA	328554/1995	18DE1995
2025		KORS	51954/1995	19DE1995
2025	718901	NETH	95119694.8	14DE1995
2025	NI-083801	TAIW	84112849	01DE1995
2025		EPC	98118113.4	24SE1998
2025	5691077	USA	08/650210	20MY1996
2026		USA	09/043276	11SE1998
2027		EPC	96117668.2	05NO1996
2027		JAPA	293538/1996	06NO1996
2027		USA	08/552528	06NO1995
2028	5714072	ASTL	18966/97	18AP1997
2028		CANA	2203051	18AP1997
2028		CHIN	97111519.2	09MY1997
2028		EPC	97107549.4	07MY1997
2028		ISRA	120779	05MY1997
2028		JAPA	117654/1997	08MY1997
2028		KORS	17805/1997	09MY1997
2028		MEXI	973482	04MY1997
2028		TAIW	86105159	21AP1997
2028	5695545	USA	08/644770	10MY1996
2029	5916647	USA	08/719668	25SE1996
2029		USA	09/250116	16FE1999
3000-8		JAPA	50578/99	26FE1999
3000-8		USA	09/046341	23MR1998
4000-10		CANA	2262152	16FE1999
4000-10		EPC	99104821.6	11MR1999
4000-10		JAPA	68311/1999	15MR1999
4000-10		USA	09/041577	13MR1998
4000-13		USA	09/265064	08MR1999
4000-15		CANA	2264458	02MR1999
4000-15		EPC	99104710.1	10MR1999

4000-15		JAPA	66169/1999	12MR1999
4000-15		USA	09/206351	07DE1998
4000-23		USA	09/168632	08OC1998
4000-26		PCT	PCT/US98/17718	26AU1998
4000-5		USA	08/914740	19AU1997
5857	5938922	FRAN	8012139	30MY1980
5857	2051666B	GBRI	8017738	30MY1980
5857	3020335	GERM	P3020335.1	29MY1980
5857	1594342	JAPA	71570/80	30MY1980
5859	8012140	FRAN	8012140	30MY1980
5859	2051665B	GBRI	8017737	30MY1980
5859	DE3020372	GERM	P3020372.6	29MY1980
5859	1577000	JAPA	71571/80	30MY1980
5873	1577006	JAPA	121274/80	03SE1980
5917	8103861	FRAN	8103861	26FE1981
5917	2070847	GBRI	8106058	26FE1981
5917	P3107205.4	GERM	P3107205.4	26FE1981
5917	4298666	USA	125195	27FE1980
5917	1996632	JAPA	361159/1991	24DE1991
5952	8114890	FRAN	8114890	30JL1981
5952	2081604	GBRI	8123398	30JL1981
5952	3130069	GERM	P3130069.3	30JL1981
5952	1904850	JAPA	118572/81	30JL1981
5952	4359510	USA	174146	31JL1980
5952	4438185	USA	414747	03SE1982
6065	4405688	USA	349795	18FE1982
6065	4541981	USA	504013	13JE1983
8018	4973434	USA	443853	29NO1989
8018	5110326	USA	668356	12MR1991
8021	210059	BELG	86305551.3	18JL1986
8021	210059	FRAN	86305551.3	18JL1986
8021	210059	GBRI	86305551.3	18JL1986
8021	P3673908.1	GERM	86305551.3	18JL1986

8021	210059	ITAL	86305551.3	18JL1986
8021	1897244	JAPA	168180/1986	18JL1986
8021	74221	KORS	5834/1986	18JL1986
8021	NI-27262	TAIW	75102940	26JL1986
8021	4620956	USA	756527	19JL1985
8034	246065	BELG	87304204.8	12MY1987
8034	246065	FRAN	87304204.8	12MY1987
8034	246065	GBRI	87304204.8	12MY1987
8034	P3782086.9	GERM	87304204.8	12MY1987
8034	246065	ITAL	87304204.8	12MY1987
8034	2058950	JAPA	114907/1987	13MY1987
8034	246065	NETH	87304204.8	12MY1987
8034	2035050-3	SPAI	246065	12MY1987
8034	246065	SWIT	87304204.8	12MY1987
8034	4966707	USA	862807	13MY1986
8046	4938931	USA	54351	26MY1987
8055	53929	KORS	16893/1988	15DE1988
8055	NI-36469	TAIW	77108803	16DE1988
8055	4976897	USA	133824	16DE1987
8055	5102552	USA	587891	25SE1990
8234	5582735	USA	08/569472	08DE1995

US Serial No.
09/732,531
PCT (filed 12/03/99)

Battery separator provided with a plurality of studs and vertical ribs

August 11, 1999

W. Böhnstedt

Polyethylene separator with short interrupted ribs ("studs") together with few continuous ribs leading to higher cold crank power, lower acid displacement and lower raw material cost.

US Serial No.
09/006,362
PCT/EP 98/07757

Meltblown fiber battery separator

January 13, 1998

W. Böhnstedt, J. K. Whear, E. M. Peters

Nonwoven of ultrafine polymeric fibers (10 % of the fibers have diameter of less than one micron) and an average pore size of less than 3 microns of the mat. The mat is formed by meltblowing. The polymeric fibers can be combined with inorganic fillers like silica, tale or glass fibers. The inorganic material or organic particles can be added during the meltblown process or in a secondary process before hot calendaring. The average particle size of added particles is from 2 to 70 microns. The amount of particles added can range from 10 % to 90 %, preferable from 50 - 55 %.

US Serial No.
09/003,653
PCTWO 98/31060

Recombinant battery separator ("Polypore")

January 7, 1998

J. Zucker

A recombinant battery separator made from a mat of meltblown, ultrafine (metallocene catalyzed) polymer fibers treated with an agent to render them permanently wettable. At least 10 % of the fibers have a diameter of less than one micron and the majority of the fibers have a diameter of less than five microns. The mat has a porosity of at least 90 % and a surface of at least 1.0 m²/g.

January 27, 1997	<p><u>Acid Jellying Separator - AJS</u> W. Böhnstedt, J. Deiters, K. Ihmels, J. Ruhoff Daramic type separator with extremely high filler content (e.g. fumed silica) for sealed lead acid batteries</p>	<p>DE 197 02 757 PCT/EP 98/03790 US Serial No. 09/101,400</p>
October 4, 1996	<p><u>Membrane for cooling units</u> H. J. Krey Cellulosic paper is impregnated with a polymer dispersion (or solution) and dried. This membrane can be used for the production of cooling units without releasing any harmful vapors.</p>	<p>DE 196 40 866</p>
September 27, 1996	<p><u>Shoe and process for its production</u> C. Gaillard, J. Meyer, R. Maglot Sole of shoe consisting of composite of microporous, filled polyethylene and leather, plastic, rubber or/and α-cellulose.</p>	<p>DE 196 41 223</p>
April 12, 1996	<p><u>Use of microporous polyolefine for absorbing sweat and other bodily exhalations ("Aeroshoes")</u> J. Meyer, C. Gaillard Daramic with special coating suitable for shoe liners and shoe inserts (moisture permeable and temperature insulating).</p>	<p>DE 196 16 224 EP 0 892 647 US Serial No. 09/155,952</p>

February 28, 1996

Battery electrolyte pad with gelling agents and method

J. Zucker

Battery separator consisting of small envelopes, which contain gel forming ingredients (i.e. fumed silica, super absorbent polymer) is placed between the battery electrodes. When exposed to electrolyte, the separator will expand as a result of gel formation. Advantage compared to the current system: No injection of gel required, i.e. fewer steps during the battery manufacturing process, and thus less risk of voids, which can occur in current method.

US 5,605,549
PCT/US 97/00924

June 6, 1995

Battery separator to solve hydration short problems in batteries

A. Samii, W. M. Choi

Sodium sulfate is incorporated into the polyethylene separator by using silica containing a high level of sodium sulfate.

US 5,618,642

April 25, 1995

Separator with ribs in MD and CMD

Ribs in cross machine direction, which are considerably lower than the (regular) ribs in machine direction (MD) will increase CMD stiffness to allow better enveloping machinability (low CMD rib height 0.1 - 0.5 mm).

DE 44 14 723
EP 0 758 490
US 5,776,630
ES 2 123 983

December 12, 1994

Method for repairing battery separators

W. Böhnstedt, K. Ihmels, K. Fischer, J. Ruhoff, H. J. Krey

Treatment of pinholes using a polymer dispersion which forms a film on the separator, and is covering the holes after evaporation of dispersing agent.

DE 44 46 675
EP 0 815 602
US 5,773,079

July 22, 1994

Sheet absorbing products for packing liquids and gas releasing food articles

U. Quintavalle, P. Crespi

Sheet absorbing product based on polyolefine based polymer (10 - 50 %) and inorganic absorbing grid (50 - 90 %) for packing food articles or products and contacting liquid and gas releasing food articles comprising sugar and salt solutions, serum, blood, oily liquids, water steam and organic substance vapor.

US 5,264,304

November 23, 1993

Battery separator with T-shaped ribs

E. D. Kragness, J. T. Lundquist

A sheet product useful as a battery separator in the form of a microporous base sheet having spaced T-shaped (cross-sectional) ribs extending from one surface of the base sheet.

US 5,384,211
EP 94 927 942.6

September 27, 1993

Oxidation resistant enveloped separator

W. M. Choi, W. Böhnstedt

A battery envelope with increased oxidation resistance in the sealed areas and the bottom crease; this is achieved by a higher amount of processing aid (oil) in said areas. A certain quantity of processing aid may be added to the battery box bottom before inserting the plate stacks.

US 5,478,677
EP 9 492 5995.6

September 13, 1993

Gauntlet separator

W. M. Choi, I. Schmidt

A battery separator for tubular positive electrodes comprises a polymer, a filler, a processing oil and a supporting layer, which is at least partially embedded in the mixture of afore mentioned compounds. The separator system can be designed as gauntlet material.

Battery separator for nickel/metal hydride batteries
 J. Kung
 A battery separator for nickel/metal hydride batteries is formed of synthetic pulp, one are more non-water swellable fibers and at least one water swellable PVA fiber. The separator is impregnated with an acrylic resin binder and may comprise alkali resistant inorganic fillers.

EP 0 507 090
 DE 0 507 090
 FR 0 507 090
 GB 0 507 090
 IT 0 507 090
 ES 92 103 636.4
 SA 92/1584

Separator to reduce antimony poisoning
 W. Böhnstedt, C. Radel, W. M. Choi, J. Kung
 Microporous separators with porous coating on the negative electrode side consisting of non-crosslinked rubber and filler.

September 3, 1991

Lead/sulfuric acid accumulator, separator (Clean Daramic)
 K. Ihmels, F. Theubert, H. Bünsch
 Black scum in lead-acid batteries can be minimized by using polyethylene separator process oil with an aromatic content of ≤ 2000 ppm and a polar part of ≤ 1.0 % ("DARAMIC CL").

DE 39 28 468
 EP 0 425 784
 US Serial No.
 08/730,571
 AU 621506
 FR 0 425 784
 GB 0425 784
 IT 0 425 784
 SA 90/6357
 ES 90116133.1
 BR PI 9004219.0

August 29, 1989

April 16, 1993

DE 39 22 160
 EP 0 409 363
 FR 0 409 363
 GB 0 409 363
 IT 0 409 363
 ES 90250171.7
 BR PI 9004080.5

June 7, 1989 Black scum suppressing tensides

C. Yaacoub

Black scum generation in lead-acid batteries can be suppressed by use of certain specific surfactants, without affecting good water loss properties of SLI batteries (DARAMIC "V").

September 9, 1988

Compressible separator

W. Böhnstedt, W. Lindenstruth

In fully automated battery assembly lines there is no possibility to adjust thickness tolerance variations of the components by adding spacers into the cells. Profile ribs which are on both sides of the separator and not directly back-to-back (rib groups of three ribs) will allow compression and relaxation, while simultaneously maintaining a minimum overall thickness.

May 19, 1986

Battery separator

W. M. Choi

Sheet type separator for alkaline batteries (DAKASEP). The separator consists of polyolefine synthetic pulp, alkali resistant organic filler and polyvinylalcohol fibers. The resulting sheet has increased tensile strength and alkali resistance.

DE 38 30 728
 EP 0 358 069
 US 4,927,772
 FR 0 358 069
 GB 0 358 069
 IT 0 358 069

US 4,734,344

US 4,330,602
DE 3 026 246

May 18, 1982

Battery separator

D. D. O'Rell, N. V. Hien, J. T. Lundquist, C. B. Lundsager

Battery separator for alkaline batteries consisting of synthetic pulp, alkaline resistant inorganic filler and fibers with length of 0.25 - 1 inch (polyester, polyacrylic, polyamide or polyolefine fibers). Production steps are: aqueous mixture, treating with cationic and anionic agent, processing on a paper-making apparatus in order to obtain sheet of less than 10 mils.

CAN 1,176,307
CAN 1,169,119

March 3, 1982

Battery separator

D. D. O'Rell, W. M. Choi, N. J. Lin, G. Gordon, J. Gillespie

The two patents cover thin, acid-stable, porous sheets of material which have channels in S- or shark tooth form (CAN 1,169,119) or has solid, sinusoidal ribs (CAN 1,176,307)

CAN 1,179,459
DE 3 102 735

January 27, 1982

Process for producing porous materials (FILLSEP)

H. L. Stöhr

Process for producing porous materials with a coarsely pored substrate, which is filled with a dispersion of micronized filler.

US 4,403,024

January 11, 1982

Battery separator

J. Gillespie, G. Gordon

Separator having a planar backweb and a plurality of ribs on at least one face with the ribs being sinusoidal in configuration ("Nested s-ribs") for applications in industrial batteries.

July 11, 1980	<p><u>Battery interseparator</u></p> <p>D. D. O'Reil</p> <p>An alkaline battery interseparator of less than 10 mils thickness and consisting of polyolefine synthetic pulp (preferably polyethylene), alkali resistant inorganic filler (preferable TiO_2), long synthetic polymer fibers (preferable polyester of polypropylene) and cationic and anionic polyacrylamide. The interseparator is made with conventional paper making apparatus.</p>	<p>DE 30 26 246</p> <p>CAN 1,159,109</p> <p>US 4,264,691</p> <p>FR 8 015 525</p> <p>GB 2 057 028</p> <p>IT 1 149 997</p>
June 18, 1980	<p><u>Battery separator</u></p> <p>D. D. O'Reil, N. J. Lin</p> <p>Battery separator with an embossed z-rib/waffle shape configuration</p>	<p>CAN 1,139,363</p> <p>US 4,228,225</p>
February 29, 1980	<p><u>An improved battery separator and method for production</u></p> <p>S. C. Feinberg, J. T. Lundquist, C. B. Lundsager, R. A. Balouskus</p> <p>Separator consisting of several layers of mixture of thermoplastic rubber, inert fillers (metal oxide like MgO, TiO_2 or Al_2O_3 with particle size of $0.01 - 10 \mu\text{m}$) and additives with high conductivity and high capability to avoid generation of dendrites.</p>	<p>US 4,327,164</p> <p>DE 3 015 659</p>
February 2, 1980	<p><u>Thermoset resin impregnated web</u></p> <p>B. Ch. Moore</p> <p>Fleece from cellulosic fibers, synthetic pulp, long paper fibers and impregnated with resin which can be crosslinked by heat is suitable for the use as battery separator, filter and other porous semi-stiff products. Process for production of the fleece and their use is described.</p>	<p>CAN 1,164,938</p> <p>US 4,286,030</p> <p>DE 3 103 116</p>

January 28, 1980	<u>Battery separator containing aromatics</u> N. Sugarman Battery Separator having polyolefine as the primary structural material is protected from oxidative attack by an oil having an aromatic content of 40 % by weight or more.	CAN 1,150,873
August 29, 1979	<u>Process of producing battery separators</u> L. N. Caputo To achieve the wanted O/A thickness of a separator small balls of polymer are ejected onto the surface of separator web and calibrated between two calender rolls.	CAN 1,140,210 DE 2 933 217
June 8, 1979	<u>Battery separator</u> J. T. Lundquist jun., C. B. Lundsager Battery separator membranes ("Powersep") which are useful in alkaline battery systems are formed from a homogeneous admixture of a polyolefine, a plasticizer and a filler like TiO ₂ with given surface and pore volume.	US 4,287,276 DE 3 018 583
August 21, 1978	<u>Battery separator</u> D. D. O'Rell, N. J. Palmer, V. H. Nguyen Composition of separator: Polyolefine synthetic pulp, siliceous filler, long fibers (polyester or glass) up to 1 inch length. By using standard paper making equipment and copolymers of cationic and anionic acrylamide separators suitable or lead acid batteries are obtained.	CAN 1,138,032 US 935,280 US 4,216,281 DE 2 933 103

AW/ah/hmw
h:aw/palidar.
13.12.1999

LIST OF TRADE NAMES, TRADEMARKS SERVICES MARKS,
TRADEMARK AND SERVICE MARK REGISTRATIONS AND
APPLICATIONS FOR TRADEMARK AND SERVICE MARK REGISTRATIONS

[See Section 2(d).]

U.S. Trademarks

CELGARD, Inc.

<u>Mark</u>	<u>Application (A) Registration (R) Or Series No. (S)</u>	<u>Registration Or Filing Date</u>
CELGARD	1,177,335	11/10/81
CELGARD	896,258	8/11/70
CELGARD	1,372,537	11/26/85
LIQUI-CEL	1,646,734	6/4/91
LIQUI-CEL	1,698,911	7/7/92
DELTA-H	2,214,086	12/29/98

U.S. TRADEMARKS

DARAMIC, INC.

MARK	APPLICATION (A) REGISTRATION (R) or SERIAL NO. (S)	REGISTRATION or FILING DATE
Dakasep	1,474,037 (R)	01/26/88
Darak	550,058 (R)	10/23/51
Daramic	925,419 (R)	12/14/71
Hyalite	1,229,481 (R)	03/08/83
Metalsep	1,843,549 (R)	07/05/94
Powersep	1,662,290 (R)	10/29/91
Submicro	2,190,823 (R)	9/22/98
Polypore	2,030,677 (R)	01/14/97
Daramic	2,190,924 (R)	9/22/98
Daramic and design (arrow)	2,190,928 (R)	9/22/98
Daga	75/741,293 (S)	07/1/99

Foreign Trademarks

CELGARD, Inc.

<u>Mark</u>	<u>Application (A)</u> <u>Registration (R)</u>	<u>Country</u>	<u>Registration or</u> <u>Filing Date (F)</u>
CELGARD	A383333	Australia	11/3/82
CELGARD	A343481	Australia	3/3/80
CELGARD	342261	Benelux	11/16/76
CELGARD	006653995	Brazil	3/10/78
CELGARD	190102	Canada	4/13/73
CELGARD	282901	Canada	8/26/83
CELGARD	162717	China	9/30/82
CELGARD	164652	Czech Republic	2/29/80
CELGARD	74509	Finland	8/20/80
CELGARD	1217631	France	11/3/82
CELGARD	1212433	France	9/7/72
CELGARD	917457	Germany	8/26/72
CELGARD	1059979	Germany	11/9/82
CELGARD	57720	Greece	11/18/76
CELGARD	97380	Ireland	2/28/80
CELGARD	55129	Israel	11/4/82
CELGARD	49568	Israel	2/24/80
CELGARD	414669	Italy	12/23/82
CELGARD	644053	Italy	10/5/72
CELGARD	1112462	Japan	4/1/75
CELGARD	2538236	Japan	5/31/93
CELGARD	229433	Korea	12/30/91
CELGARD	72753	Korea	11/18/80
CELGARD	101460	Norway	1/11/79
CELGARD	57931	Poland	3/3/90
CELGARD	193171	Portugal	11/19/84
CELGARD	59769	Russia Fed.	11/24/76
CELGARD	82/8548	South Africa	11/2/82
CELGARD	80/1094	South Africa	3/4/80
CELGARD	832888	Spain	9/20/78
CELGARD	176201	Sweden	4/16/81
CELGARD	322016	Switzerland	11/12/76
CELGARD	427395	Taiwan	1/16/89
CELGARD	450205	Taiwan	8/16/89
CELGARD	1184491	United Kingdom	11/1/82
CELGARD	997453	United Kingdom	8/24/72
CELGARD	27481	Yugoslavia	3/1/84
LIQUI-CEL	A562890	Australia	9/3/91

LIQUI-CEL	509166	Benelux	9/5/91
LIQUI-CEL	688976	Canada	2/12/93
LIQUI-CEL	1693160	France	9/13/91
LIQUI-CEL	2050106	Germany	9/6/91
LIQUI-CEL	613908	Italy	9/18/91
LIQUI-CEL	2708809	Japan	7/31/95
LIQUI-CEL	255284	Korea	12/1/92
LIQUI-CEL	264997	Korea	6/2/93
LIQUI-CEL	1655632	Spain	9/10/91
LIQUI-CEL	392615	Switzerland	9/3/91
LIQUI-CEL	564331	Taiwan	7/1/92
LIQUI-CEL	555078	Taiwan	3/16/92
LIQUI-CEL	1475397	United Kingdom	9/3/91

FOREIGN TRADEMARKS

DARAMIC, INC.

MARK	APPLICATION (A) REGISTRATION (R)	COUNTRY	REGISTRATION or FILING DATE
Darak	95,061 (R)	AUSTRIA	09/10/90
Darak	050,385 (R)	BENELUX	12/15/73
Darak	003137120 (R)	BRAZIL	06/13/55
Darak	105,21520 (R)	CANADA	12/15/56
Darak	403,268 (R)	CHILE	03/15/93
Darak	1,224,940 (R)	CHINA	11/21/98
Darak	3018/81 (R)	DENMARK	10/23/81
Darak	82175 (R)	FINLAND	07/05/82
Darak	1480699 (R)	FRANCE	07/31/88
Darak	658,458 (R)	GERMANY	06/04/54
Darak	807,348 (R)	GREAT BRITAIN	6/23/95
Darak	593,048 (A)	INDIA	03/19/93
Darak	280,787 (REN) (R)	INDONESIA	10/08/91
Darak	661334 (R)	ITALY	8/11/95
Darak	1,882,171 (R)	JAPAN	08/28/86
Darak	93/03629 (R)	MALAYSIA	04/07/97
Darak	108,976 (R)	NORWAY	07/30/81
Darak	120433 (A)	PAKISTAN	05/26/93
Darak	207,244 (R)	PORTUGAL	12/29/87
Darak	59/3015 (R)	SOUTH AFRICA	01/22/60
Darak	944,473 (R)	SPAIN	03/20/81
Darak	175,496 (R)	SWEDEN	02/27/81
Darak	408,001 (R)	SWIT	03/25/93
Darak	815219 (R)	TAIWAN	9/1/98
Darak	1.611.740 (R)	ARGENTINA	08/16/96
Daramic	1.610.213 (R)	ARGENTINA	08/02/96
Daramic	A393704 (R)	AUSTRALIA	07/06/83

Daramic	95,060 (R)	AUSTRIA	09/10/80
MARK	APPLICATION (A) REGISTRATION (R)	COUNTRY	REGISTRATION or FILING DATE
Daramic	366,395 (R)	BENELUX	05/14/80
Daramic	006128998 (R)	BRAZIL	09/10/85
Daramic	22093 (R)	BULGARIA	03/09/95
Daramic	289,938 (R)	CANADA	04/13/84
Daramic	407882 (R)	CHILE	11/25/97
Daramic	403269 (R)	CHILE	11/25/97
Daramic	687624 (R)	CHINA	04/28/94
Daramic	112,854 (R)	COLOMBIA	04/09/86
Daramic	215 029 (R)	CZECH REPUBLIC	01/25/99
Daramic	3017/81 (R)	DENMARK	10/23/81
Daramic	82734 (R)	FINLAND	09/06/82
Daramic	1,533,150 (R)	FRANCE	01/21/89
Daramic	797,832 (R)	GERMANY	12/1/64
Daramic	858,906 (R)	GREAT BRITAIN	10/29/98
Daramic	2241/85 (R)	HONG KONG	04/12/84
Daramic	506,640 (R)	INDIA	03/08/89
Daramic	308,336 (R)	INDONESIA	07/18/94
Daramic	425,126 (R)	ITALY	05/19/86
Daramic	2,076,378 (R)	JAPAN	7/22/98
Daramic	413262 (R)	KOREA	10/14/98
Daramic	045207 (R)	MALAYSIA	12/29/96
Daramic	342,386 (R)	MEXICO	02/08/88
Daramic	147,873 (R)	NEW ZEALAND	08/08/86
Daramic	108,977 (R)	NORWAY	07/30/81
Daramic	85376 (R)	PERU	06/01/90
Daramic	59450 (R)	PHILIPPINES	10/11/94
Daramic	Z-176.908 (A)	POLAND	08/12/97
Daramic	207,246 (R)	PORTUGAL	12/29/87
Daramic	170027 (R)	RUSSIA	12/14/98
Daramic	83/4665 (R)	SOUTH AFRICA	07/11/83

Daramic	944,472 (R)	SPAIN	03/20/81
Daramic	306,496 (R)	SWIT	05/19/80
MARK	APPLICATION (A) REGISTRATION (R)	COUNTRY	REGISTRATION or FILING DATE
Daramic	613,166 (R)	TAIWAN	09/16/93
Daramic	KOR 15020 (R)	THAILAND	8/15/94
Daramic	120,912 (R)	VENE	04/30/86
Daramic	10896 (R)	VIETNAM	01/27/94
Daramic	407.882 (R)	CHILE	09/02/96
Daramic	403,269 (R)	CHILE	03/15/93
Submicro	736340 (R)	AUSTRALIA	01/09/98
Submicro	130,137 (R)	AUSTRIA	03/22/90
Submicro	481,502 (R)	BENELUX	05/18/89
Submicro	1543693 (R)	FRANCE	07/28/89
Submicro	1167839 (R)	GERMANY	11/14/90
Submicro	1381500 (R)	GREAT BRITAIN	01/25/91
Submicro	525032 (R)	INDIA	11/13/94
Submicro	569914 (R)	ITALY	05/11/92
Submicro	197199 (R)	KOREA	07/26/90
Submicro	396843 (R)	MEXICO	06/24/91
Submicro	278126 (R)	NEW ZEALAND	6/19/98
Submicro	340279 (S)	THAILAND	08/01/97
Daramic stylized (R)	98719487 (R)	FRANCE	2/23/98
Daramic stylized (R)	39752052.2 (R)	GERMANY	3/30/98
Daramic stylized	RM98C/000187 (A)	ITALY	01/16/98
Daramic stylized (R)	TM89780 (R)	THAILAND	4/23/99
Daramic and design (arrow)	98/719488 (R)	FRANCE	2/23/98
Daramic and design (arrow)	397 52 053 (R)	GERMANY	12/19/97
Daramic and arrow design	RM98C/000188 (A)	ITALY	01/16/98
Daramic and design (arrow)	TM88319 (R)	THAILAND	3/8/99
Micro Por	M194C006240 (R)	ITALY	12/18/96
Mito	M1914C008458 (R)	ITALY	06/27/94
Daga (Stylized)	RM99C004923 (A)	ITALY	10/10/99

CELGARD

United States

SCHEDULE A

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	4910106	3/20/90
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	4997603	3/5/91
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	5043113	8/27/91
Microporous Membrane From Cold-Rolled Precursor Films	5328760	7/12/94
Modified Microporous Structures	5049275	9/17/91
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	5013439	5/7/91
Liquid Chromatography Using Microporous Hollow Fibers	4957620	9/18/90
Battery Seaparator With Integral Thermal Fuse	4973532	11/27/90
Process for Making Microporous Membranes Having Gel-Filled Pores	5160627	11/3/92
Liquid Membrane Modules with Minimal Effective Membrane	5449457	9/12/95
Liquid Membrane Modules With Minimal Effective Membrane	5169529	12/8/92
Battery Separator	4650730	3/17/87
Battery Separator	4731304	3/15/88
Battery Separator	5281491	1/25/94
Process for Making a Battery Separator	5240655	8/31/93
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	5453333	9/26/95

TITLE	PATENT NO.	ISSUE DATE
Pervaporation Process for Separating Alcohols From Ethers	4774365	9/27/88
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	5264171	11/23/93
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	5352361	10/4/94
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Integral Turbulence Promoters	5186832	2/16/93
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	5284584	2/8/94
Methods of Making Cross-Ply Microporous Membrane Batter	5667911	9/16/97
Shutdown, Bilayer Battery Separator	5565281	10/15/96
Shutdown, Trilayer Battery Separator	5691077	11/25/97
Method for Solvent Extraction Using a Dual-Skinned Asymmetric Microporous Membrane	5714072	2/3/98
Degassing Liquids: Apparatus and Method	5695545	12/9/97
Solvent Stretch Process for Preparing a Microporous Film	4257997	3/24/81
Solvent Stretch Process for Preparing Microporous Films From Precursor Films of Controlled Crystalline Structure	4255376	3/10/81
Process for Preparing Microporous Hollow Fibers	4290987	9/22/81
Hydrophilic Monomer Treated Microporous Films and Process	4346142	8/24/82
Bag for Cultivating Mushrooms	4311477	1/19/82
Coated Open-Celled Microporous Membranes	4298666	11/3/81
Hydrophilic Polymer Coated Microporous Membranes Capable of Use as a Battery Separator	4359510	11/16/82
Hydrophilic Polymer Coated Microporous Membranes	4438185	3/20/84

TITLE	PATENT NO.	ISSUE DATE
Capable of Use as a Battery Separator		
Microporous Hollow Fiber and Process and Apparatus for Preparing Such Fiber	4405688	9/20/83
Microporous Hollow Fiber and Process and Apparatus for Preparing Such Fiber	4541981	9/17/85
Immobilized Liquid Membrane	4973434	11/27/90
Immobilized Liquid Membrane	5110326	5/5/92
Process for Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	4620956	11/4/86
Liquid/Liquid Extractions with Microporous Membranes	4966707	10/30/90
Microporous Membrane Trickle Bed Reactor	4938931	7/3/90
Composite Porous Membranes and Methods of Making the Same	4976897	12/11/90
Composite Porous Membranes and Methods of Making the Same	5102552	4/7/92
Removal of Organics From a Fluid Using a Permeable Membrane	5582735	12/10/96

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	09/059126	4/13/98
Crosslinking of Polymers	09/027709	2/23/98
Portable Power Tools Having Low Rate, Rechargeable Batteries	08/979017	11/26/97
A Hydrophilic Polyolefin	09/134622	8/14/98
Separator for Gel Electrolyte Battery	09/016024	1/30/98
Polypropylene Microporous Membrane for Battery Separator	09/105516	6/26/98
Structurally Stable, Fusible Battery Separators and	09/296682	4/20/99

TITLE	APPLICATION NO.	FILING DATE
Method of Making Same		
Ethylene-Vinyl Alcohol Copolymer Battery Separator	08/969235	11/13/97
Penta-Layer Battery Separator	08/995205	12/19/97
Trilayer Battery Separator	09/041163	3/12/98
A Method of Making a Trilayer Battery Separator	08/839664	4/15/97
Ultra-Thin, Single-Ply Battery Separator	08/896513	6/22/97
Crosslinking of Polymers	09/043276	9/11/98
Pressure Vessel: Overmolding a Polyolefin Onto a Polyolefin	08/719668	9/25/96
Pressure Vessel: Overmolding a Polyolefin Onto a Polyolefin	09/250116	2/16/99
Microporous Hollow Fiber Blood Oxygenator	09/046341	3/23/98
Fiber-Reinforced, Composite Body Contactors	09/041577	3/13/98
Shell-Less Hollow Fiber Membrane Fluid Contactor	09/265064	3/8/99
A Thermoplastic, Unibody Transfer Device	09/206351	12/7/98
Device for Removing Entrained Gases From Liquids	09/168632	10/8/98
A Contactor for Degassing Liquids	08/914740	8/19/97
Battery Separators with Reduced Splitting Propensity	09/385933	8/30/99

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FOREIGN PATENTS AND PATENT APPLICATIONS

AUSTRALIA

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Battery Separator	579728	5/25/89
Battery Separator	668704	9/4/96
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	652878	1/10/95

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Degassing Liquids: Apparatus and Method	18966/97	4/18/97

AUSTRIA

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****BELGIUM****PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Formation of Halgenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From Cold-Rolled Precursor Films	378346	9/11/96
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95
Battery Separator With Integral Thermal Fuse	391694	11/17/94
Battery Separator	0201875	9/4/91
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	0604972	7/23/97
Process for Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	210059	9/5/90
Liquid/Liquid Extractions With Microporous Membranes	246065	10/7/92

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****BRAZIL****PATENT APPLICATIONS**

TITLE	APPLICATION NO.	FILING DATE
Battery Separator	P19206964	12/18/92
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	P19205173	12/28/92

CANADA**PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	1231810	1/26/88
Microporous Membrane From Cold-Rolled Precursor Films	2007160	8/19/97
Battery Separator	1266504	3/6/90
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules having Flow-Directing Baffles	2085818	9/24/96
Bag for Cultivating Mushrooms	1131147	9/7/82
Vessel for Fungus Cultivation	1120721	3/30/82

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****PATENT APPLICATIONS**

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	2266152	3/18/99
Portable Power Tools Having Low Rate, Rechargeable Batteries	2246646	9/3/98
Separator For Gel Electrolyte Battery	2254809	12/1/98
Ethylene-Vinyl Alcohol Copolymer Battery Separator	2245394	8/24/98
Penta-Layer Battery Separator	2253017	11/5/98
Trilayer Battery Separator	2259786	1/19/99
A Method of Making a Trilayer Battery Separator	2233052	3/25/98
Battery Separator	2126316	12/18/92
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	2085380	12/15/92
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	2102156	11/1/93
Degassing Liquids: Apparatus and Method	2203051	4/18/97
Fiber-Reinforced, Composite Body Contactors	2262152	2/16/99
A Thermoplastic, Unibody Transfer Device	2264458	3/2/99

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FOREIGN PATENTS AND PATENT APPLICATIONS

CHINA

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Methods of Making Cross-Ply Microporous Membrane Battery	95120142.5	12/22/95
Shutdown, Bilayer Battery Separator	95120034.8	12/1/95
Shutdown, Trilayer Battery Separator	95120899.3	12/19/95
Degassing Liquids: Apparatus and Method	97111519.2	5/9/97

EPC

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	99106727.3	4/1/99
Portable Power Tools Having Low Rate, Rechargeable Batteries	98121802.7	11/17/98
Separator for Gel Electrolyte Battery	99101376.4	1/26/99
Ethylene-Vinyl Alcohol Copolymer Battery Separator	98120792.1	11/3/98
Penta-Layer Battery Separator	98123315.8	12/8/98
Trilayer Battery Separator	99104437.1	3/5/99

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TITLE	APPLICATION NO.	FILING DATE
A Method of Making a Trilayer Battery Separator	98106208.6	4/4/98
Battery Separator	93901174.8	12/18/92
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	92122016.6	12/24/92
Methods of Making Cross-Ply Microporous Membrane Battery	95119693.0	12/14/95
Shutdown, Trilayer Battery Separator	95119694.8	12/14/95
Shutdown, Trilayer Battery Separator	98118113.4	9/24/98
Method of Solvent Extraction Using a Dual-Skinned Asymmetric Microporous Membrane	96117668.2	11/5/96
Degassing Liquids: Apparatus and Method	97107549.4	5/7/97
Fiber-Reinforced, Composite Body Contactors	99104821.6	3/11/99
A Thermoplastic, Unibody Transfer Device	99104710.1	3/10/99

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****FRANCE****PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	129420	5/30/90
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From Cold-Rolled Precursor Films	378346	9/11/96
Microporous Membranes Having Increased Pore Densities and Process For Making the Same	342026	10/18/95
Battery Separator With Integral Thermal Fuse	391694	11/17/94
Battery Separator	0201875	9/4/91
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	0550262	4/2/97
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	0604972	7/23/97
Shutdown, Bilayer Battery Separator	0715364	4/1/98
Solvent Stretch Process for Preparing a Microporous Film	8012139	6/13/83

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TITLE	PATENT NO.	ISSUE DATE
Solvent Stretch Process for Preparing Microporous Films From Precursor Films of Controlled Crystalline Structure	8012140	1/10/83
Coated Open-Celled Microporous Membranes	8103861	6/17/85
Hydrophilic Polymer Coated Microporous Membranes Capable of Use as a Battery Separator	8114890	4/16/84
Process for Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	210059	9/5/90
Liquid/Liquid Extractions With Microporous Membranes	246065	10/7/92
Composite Porous Membranes and Methods of Making the Same	321241	1/13/93

GERMANY**PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	P3482377.8	5/30/90
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	68924224.7	9/13/95
Microporous Membrane From Cold-Rolled Precursor	69028418.7	9/11/96

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TITLE	PATENT NO.	ISSUE DATE
Films		
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	68924552.1	10/18/95
Battery Separator With Integral Thermal Fuse	69014148.3	11/17/94
Battery Separator	P3681195.5	9/4/91
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	P69218750.2	4/2/97
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	69312453.9	7/23/97
Shutdown, Bilayer Battery Separator	69501937	4/1/98
Solvent Stretch Process for Preparing a Microporous Film	3020335	3/25/93
Solvent Stretch Process for Preparing Microporous Films From Precursor Films of Controlled Crystalline Structure	DE3020372	3/10/94
Coated Open-Celled Microporous Membranes	P3107205.4	2/27/92
Hydrophilic Polymer Coated Microporous Membranes Capable of Use as a Battery Separator	3130069	10/26/95
Process For Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	P3673908.1	9/5/90
Liquid/Liquid Extractions With Microporous		

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FOREIGN PATENTS AND PATENT APPLICATIONS

TITLE	PATENT NO.	ISSUE DATE
Membranes	P3782086.9	10/7/92
Composite Porous Membranes and Methods of Making the Same	P3877542.5	1/13/93

ISRAEL

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Degassing Liquids: Apparatus and Method	120779	5/5/97

ITALY

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TITLE	PATENT NO.	ISSUE DATE
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From Cold-Rolled Precursor		

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Films	378346	9/11/96
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95
Battery Separator With Integral Thermal Fuse	391694	11/17/94
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	0550262	4/2/97
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	0604972	7/23/97
Process For Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	210059	9/5/90
Liquid/Liquid Extractions With Microporous Membranes	246065	10/7/92
Composite Porous Membranes and Methods of Making the Same	321241	1/13/93

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****JAPAN****PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	1804088	11/26/93
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	2816449	8/21/98
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	2128906	5/2/97
Battery Separator With Integral thermal Fuse	2032395	3/19/96
Battery Separator	2108985	11/21/96
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	2139235	11/20/98
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	2519872	5/17/96
Solvent Stretch Process for Preparing a Microporous Film	1594342	12/14/90
Solvent Stretch Process for Preparing Microporous Films From Precursor Films of Controlled Crystalline Structure	1577000	8/24/90

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Hydrophilic Monomer Treated Microporous Films and Process	1577006	8/24/90
Coated Open-Celled Microporous Membranes	1996632	12/8/95
Hydrophilic Polymer Coated Microporous Membranes Capable of Use as a Battery Separator	1904850	2/8/95
Process for Preparing Microporous Polyethylene Film By Uniaxial Cold and Hot Stretching	1897244	1/23/95
Liquid/Liquid Extractions With Microporous Membranes	2058950	6/10/96
Battery Separator	2714605	11/7/97

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Microporous Membrane From Cold-Rolled Precursor Films	2396/90	1/9/90
Trilayer Battery Separator	102177/1999	4/9/99
Portable Power Tools Having Low Rate, Rechargeable Batteries	333616/1998	11/25/98
Separator for Gel Electrolyte Battery	8637/1999	1/18/99
Ethylene-Vinyl Alcohol Copolymer Battery Separator	323302/1998	11/13/98
Penta-Layer Battery Separator	359899/1998	12/18/98

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Trilayer Battery Separator	66702/1999	3/12/99
A Method of Making a Trilayer Battery Separator	102299/1998	4/14/98
Battery Separator	117416/97	4/22/97
Battery Separator	25844/92	1/17/92
Process for Making a Battery Separator	25850/92	1/17/92
Single Layer Porous Membrane	268012/92	9/10/92
Battery Separator	268013/92	9/10/92
Fusible Porous Membrane	23362/94	1/24/94
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	261843/96	10/2/96
Methods of Making Cross-Ply Microporous Membrane Battery	334415/1995	12/22/95
Shutdown, Bilayer Battery Separator	313891/1995	12/2/95
Shutdown, Trilayer Battery Separator	328554/1995	12/18/95
Method for Solvent Extraction Using a Dual-Skinned Asymmetric Microporous Membrane	293538/1996	11/6/96
Degassing Liquids: Apparatus and Method	117654/1997	5/8/97
Microporous Hollow Fiber Blood Oxygenator	50578/99	2/26/99
Fiber-Reinforced, Composite Body Contactors	68311/1999	3/15/99
A Thermoplastic, Unibody Transfer Device	66169/1999	3/12/99

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SOUTH KOREA

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	67552	11/12/93
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	74824	6/25/94
Battery Separator With Integral Thermal Fuse	89010	9/12/95
Battery Separator	53702	8/10/86
Process for Preparing Microporous Polyethylene Film By Uniaxial cold and Hot Stretching	74221	6/3/94
Liquid/Liquid Extractions With Microporous Membranes	62929	6/22/93
Composite Porous Membranes and Methods of Making the Same	53929	8/19/92

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CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS**

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	12650/1999	4/10/99
Portable Power Tools Having Low Rate, Rechargeable Batteries	42952/1998	10/14/98
Separator for Gel Electrolyte Battery	55651/1998	12/17/98
Ethylene-Vinyl Alcohol Copolymer Battery Separator	46084/1998	10/30/98
Penta-Layer Battery Separator	55397/1998	12/16/98
Trilayer Battery Separator	4792/1999	2/11/99
A Method of Making a Trilayer Battery Separator	12581/1998	4/9/98
Battery Separator	94-702178	12/18/92
Porous Membrane Having Single layer Structure, Battery Separator Made Thereof	92-25660	12/24/92
Methods of Making Cross Ply-Microporous Membrane Battery	53447/1995	12/12/95
Shutdown, Bilayer Battery Separator	46052/1995	12/1/95
Shutdown, Trilayer Battery Separator	51954/1995	12/19/95
Degassing Liquids: Apparatus and Method	17805/1997	5/9/97

CELGARD

SCHEDULE B

FOREIGN PATENTS AND PATENT APPLICATIONS

LIECHTENSTEIN

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Microporous Membrane From Cold-Rolled Precursor Films	378346	9/11/96

MEXICO

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	183183	11/8/96

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Degassing Liquids: Apparatus and Method	973482	5/4/97

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS****NETHERLANDS****PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From cold-Rolled Precursor Films	378346	9/11/96
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95
Battery Separator With Integral Thermal Fuse	391694	11/17/94
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	0604972	7/23/97
Shutdown, Bilayer Battery Separator	0715364	4/1/98
Liquid/Liquid Extractions with Microporous Membranes	246065	10/7/92

PCT

TITLE	APPLICATION NO.	FILING DATE
Device for Removal of Gas Bubbles and Dissolved Gases in Liquid	PCT/US98/17718	8/26/98

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SCHEDULE B

FOREIGN PATENTS AND PATENT APPLICATIONS

SOUTH AFRICA

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Battery Separator	92/9912	10/27/93
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	92/9949	9/29/93

SPAIN

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Formation of Halogenated Polymeric Microporous Membranes Having Improved Strength Properties	2078240-3	9/13/95
Microporous Membrane From Cold-Rolled Precursor Films	2091787-2	9/11/96
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	2079377-4	10/18/95

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS**

Battery Separator With Integral Thermal Fuse	2064617-8	11/17/94
Liquid/Liquid Extractions With Microporous Membranes	2035050-3	10/7/92
Composite Porous Membranes and Methods of Making the Same	2037247-7	1/13/93

SWEDEN**PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95

SWITZERLAND**PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Formation of halogenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From Cold-Rolled Precursor Films	378346	9/11/96

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS**

Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95
Battery Separator with Integral Thermal Fuse	391694	11/17/94
Battery Separator	0201875	9/4/91
Liquid/Liquid Extractions with Microporous Membranes	246065	10/7/92

TAIWAN**PATENTS**

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	NI-23451	1/27/86
Microporous Membrane From Cold-Rolled Precursor Films	NI-65131	6/9/94
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	NI-44755	5/31/91
Battery Separator With Integral Thermal Fuse	NI-35447	3/30/90
Battery Separator	NI-65908	8/22/94
Porous Membrane Having Single Layer Structure,		

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS**

Battery Separator Made Thereof	NI-65483	7/12/94
Spiral-Wound Hollow Fiber Membrane Fabric Cartridges and Modules Having Flow-Directing Baffles	NI-070918	8/4/95
Methods of Making Cross-Ply Microporous Membrane Battery	NI-082914	1/1/97
Shutdown, Bilayer Battery Separator	UM-121871	3/21/97
Shutdown, Trilayer Battery Separator	NI-083801	4/21/97
Process for Preparing Microporous Polyethylene Film By Uniaxial Cold and Hot Stretching	NI-27262	12/5/87
Composite Porous Membranes and Methods of Making the Same	NI-36469	5/18/90

PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	88104233	3/18/99
Portable Power Tools Having Low Rate, Rechargeable Batteries	87114410	8/31/98
Separator For Gel Electrolyte Battery	87119915	12/1/98
Ethylene-vinyl Alcohol Copolymer Battery Separator	87113820	8/21/98
Penta-Layer Battery Separator	87118270	11/3/98

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SCHEDULE B

FOREIGN PATENTS AND PATENT APPLICATIONS

TITLE	APPLICATION NO.	FILING DATE
Trilayer Battery Separator	88100519	1/14/99
A Method of Making a Trilayer Battery Separator	87104866	4/1/98
Degassing Liquids: Apparatus and Method	86105159	4/21/97

UNITED KINGDOM

PATENTS

TITLE	PATENT NO.	ISSUE DATE
Surfactant Treated Polyolefinic Microporous Materials	129420	5/30/90
Formation of Halgenated Polymeric Microporous Membranes Having Improved Strength Properties	356045	9/13/95
Microporous Membrane From Cold-Rolled Precursor Films	378346	9/11/96
Microporous Membranes Having Increased Pore Densities and Process for Making the Same	342026	10/18/95

CELGARD**SCHEDULE B****FOREIGN PATENTS AND PATENT APPLICATIONS**

TITLE	PATENT NO.	ISSUE DATE
Battery Separator With Integral Thermal Fuse	391694	11/17/94
Battery Separator	0201875	9/4/91
Porous Membrane Having Single Layer Structure, Battery Separator Made Thereof	0550262	4/2/97
Hollow Fiber Membrane Fabric-Containing Cartridges and Modules Having Solvent-Resistant Thermoplastic Tube Sheets	0604972	7/23/97
Shutdown, Bilayer Battery Separator	0715364	4/1/98
Solvent Stretch Process for Preparing a Microporous Film	2051666B	3/9/83
Solvent Stretch Process for Preparing a Microporous Films From Precursor Films of Controlled Crystalline Structure	2051665B	3/9/83
Coated Open-Celled Microporous Membranes	2070847	2/1/84
Hydrophilic Polymer Coated Microporous Membranes Capable of Use as a Battery Separator	2081604	7/11/84
Process for Preparing Microporous Polyethylene Film by Uniaxial Cold and Hot Stretching	210059	9/5/90
Liquid/Liquid Extractions With Microporous Membranes	246065	10/7/92
Composite Porous Membranes and Methods of Making the Same	321241	1/13/93