

02-03-2005

U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

RE



102932417

To the Director of the U.S. Patent and Trademark Office: Please record the enclosed documents or the new address(es) below.

**1. Name of conveying party(ies)/Execution Date(s):**

Performance Fibers, Inc.;  
Performance Fibers Holdings, Inc.; and  
Performance Fibers Enterprises, Inc.

Execution Date(s) December 21, 2004

Additional name(s) of conveying party(ies) attached? ☐ Yes ☐ No

**2. Name and address of receiving party(ies)**

Name: General Electric Capital Corporation

Internal Address: \_\_\_\_\_

Street Address: 100 California Street, 10th Fl

City: San Francisco

State: CA

Country: USA Zip: 94111

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

**3. Nature of conveyance:**

- ☐ Assignment ☐ Merger  
☒ Security Agreement ☐ Change of Name  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☐ Other \_\_\_\_\_

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

A. Patent Application No.(s)  
See attached Schedule B

☐ This document is being filed together with a new application.

B. Patent No.(s)  
See attached Schedule B

Additional numbers attached? ☐ Yes ☐ No

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

Name: Daniel H. Golub

Internal Address: Morgan, Lewis & Bockius

Street Address: 1701 Market Street

City: Philadelphia

State: PA Zip: 19103

Phone Number: 215-963-5055

Fax Number: 215-963-5001

Email Address: dgolub@morganlewis.com

**6. Total number of applications and patents involved:**

79

**7. Total fee (37 CFR 1.21(h) & 3.41) \$** \_\_\_\_\_

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

**8. Payment Information**

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 50-0310

Authorized User Name \_\_\_\_\_

**9. Signature:**

Signature

January 23, 2005

Date

Daniel H. Golub

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 67

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

02/02/2005 BTOW11 00000191 500310 5236558

01 FC:0021 3160.00 BA

PATENT  
REEL: 016195 FRAME: 0354

**SCHEDULE B**

| <b><u>US Patent No.</u></b> | <b><u>Grant Date</u></b> |
|-----------------------------|--------------------------|
| 5,236,558                   | 08/17/1993               |
| 4,851,172                   | 07/25/1989               |
| 4,857,405                   | 08/15/1989               |
| 4,880,871                   | 11/14/1989               |
| 4,767,646                   | 08/30/1998               |
| 4,960,431                   | 10/21/1990               |
| 4,873,144                   | 10/10/1989               |
| 4,858,838                   | 08/22/1989               |
| 4,975,326                   | 12/04/1990               |
| 4,867,936                   | 09/19/1989               |
| 5,033,523                   | 07/23/1991               |
| 4,839,124                   | 06/13/1989               |
| 5,234,764                   | 08/10/1993               |
| 5,403,659                   | 04/04/1995               |
| 5,067,538                   | 11/26/1991               |
| 5,630,976                   | 05/20/1997               |
| 6,403,006                   | 06/11/2002               |
| 6,828,021                   | 12/07/2004               |
| 5,132,067                   | 07/21/1992               |
| 4,886,707                   | 12/12/1989               |
| 5,085,818                   | 02/04/1992               |
| 4,929,715                   | 05/29/1990               |
| 5,260,122                   | 11/09/1993               |
| 5,397,527                   | 03/14/1995               |
| 5,277,858                   | 01/11/1994               |
| 5,240,660                   | 08/31/1993               |
| 6,057,252                   | 05/02/2000               |
| 6,312,806                   | 11/06/2001               |
| 6,492,022                   | 12/10/2002               |
| 5,869,582                   | 02/09/1999               |
| 5,830,811                   | 11/03/1998               |
| 6,034,202                   | 03/07/2000               |
| 6,228,488                   | 05/08/2001               |
| 6,340,524                   | 01/22/2002               |
| 6,613,257                   | 09/02/2003               |
| 6,071,835                   | 06/06/2000               |
| 6,099,963                   | 08/08/2000               |
| 6,413,452                   | 07/02/2002               |
| 6,796,337                   | 09/28/2004               |
| 6,777,496                   | 08/17/2004               |
| 6,365,065                   | 04/02/2002               |
| 6,770,231                   | 08/03/2004               |

| <b>US Patent No.</b> | <b>Grant Date</b> |
|----------------------|-------------------|
| 6,426,142            | 07/30/2002        |
| 6,712,988            | 03/30/2004        |
| 6,601,378            | 08/05/2003        |
| 6,780,922            | 08/24/2004        |
| 4,988,777            | 01/29/1991        |
| 4,983,691            | 01/08/1991        |
| 6,696,151            | 02/24/2004        |
| 5,116,682            | 05/26/1992        |
| 5,232,742            | 08/03/1993        |
| 6,703,122            | 03/09/2004        |
| 6,649,263            | 11/18/2003        |
| 6,669,993            | 12/30/2003        |
| 6,797,065            | 09/28/2004        |
| 6,794,462            | 09/21/2004        |

| <b>Application No.</b> | <b>Filed Date</b> |
|------------------------|-------------------|
| 10/140,841             | 05/07/2002        |
| 10/834,415             | 04/28/2004        |
| 09/288,589             | 04/08/1999        |
| 09/587,347             | 06/05/2000        |
| 10/740,192             | 12/18/2003        |
| 10/933,721             | 09/03/2004        |
| 10/396,867             | 03/25/2003        |
| 10/887,156             | 07/08/2004        |
| 08/494,912             | 06/26/1995        |
| 60/352,411             | 01/28/2002        |
| 10/726,762             | 12/02/2003        |
| 10/996,203             | 11/22/2004        |
| 10/186,831             | 07/01/2002        |
| 10/726,765             | 12/02/2003        |
| 10/342,533             | 01/14/2003        |
| 10/384,046             | 03/07/2003        |
| 10/680,586             | 10/06/2003        |
| 10/754,397             | 01/09/2004        |
| 10/887,154             | 07/08/2004        |
| 10/863,023             | 06/07/2004        |
| 10/150,799             | 05/17/2002        |
| 10/432,510             | 11/21/2001        |
| 10/980,546             | 11/03/2004        |

## INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT (together with all amendments, if any, from time to time, this "Intellectual Property Security Agreement"), dated as of December 21, 2004, is made by EACH OF THE GRANTORS LISTED ON THE SIGNATURE PAGES HERETO AND EACH ADDITIONAL PARTY WHICH BECOMES A GRANTOR HERETO PURSUANT TO SECTION 8 HEREOF (collectively, "Grantors" and each, a "Grantor"), in favor of GENERAL ELECTRIC CAPITAL CORPORATION, a Delaware corporation, in its capacity as Agent ("Agent") for itself and the lenders from time to time party to the Credit Agreement described below ("Lenders").

### W I T N E S S E T H:

WHEREAS, pursuant to that certain Credit Agreement, dated as of the date hereof, by and among Performance Fibers, Inc., a Delaware corporation ("Borrower"), the other Credit Parties signatory thereto, General Electric Capital Corporation, for itself, as a Lender, and as Agent for Lenders, and the other Lenders signatory thereto from time to time (including all annexes, exhibits and schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Credit Agreement"), Lenders have agreed to make Loans and to incur Letter of Credit Obligations on behalf of Borrower; and

WHEREAS, Grantors directly or indirectly benefit from the credit facilities made available to Borrower under the Credit Agreement and in order to induce Agent and Lenders to enter into the Credit Agreement and other Loan Documents and to induce Lenders to make the Loans and to incur Letter of Credit Obligations as provided for in the Credit Agreement, Grantors desire to grant a continuing Lien on the Intellectual Property Collateral to Agent, for the benefit of Agent and Lenders, to secure all of the Obligations;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. DEFINED TERMS. All capitalized terms used (including in the Recitals hereto) but not otherwise defined herein have the meanings given to them in Annex A to the Credit Agreement.

2. GRANT OF SECURITY INTEREST IN INTELLECTUAL PROPERTY COLLATERAL. (a) To secure the prompt and complete payment, performance and observance of all the Obligations, each Grantor hereby grants, assigns, conveys, mortgages, pledges, hypothecates and transfers to Agent, for itself and the benefit of the Lenders, a continuing first priority security interest in and Lien upon all of its right, title and interest in, to and under the following, whether presently existing or hereafter created or acquired by or arising in favor of such Grantor and whether owned or consigned by or to, or licensed from or to, such Grantor (collectively, the "Intellectual Property Collateral"):

(i) all of its Patents and Patent Licenses to which it is a party including those referred to on Schedule I hereto;

(ii) all of its Trademarks and Trademark Licenses to which it is a party including those referred to on Schedule II hereto;

(iii) all of its Copyrights and Copyright Licenses to which it is a party including those referred to on Schedule III hereto;

(iv) all reissues, continuations or extensions of the foregoing;

(v) all goodwill of the business connected with the use of, and symbolized by, each Patent, each Patent License, each Trademark, each Trademark License, each Copyright and each Copyright License; and

(vi) all products and proceeds of the foregoing, including, without limitation, any claim by such Grantor against third parties for past, present or future (A) infringement or dilution of any Patent or Patent licensed under any Patent License, (B) injury to the goodwill associated with any Patent or any Patent licensed under any Patent License, (C) infringement or dilution of any Trademark or Trademark licensed under any Trademark License, (D) injury to the goodwill associated with any Trademark or any Trademark licensed under any Trademark License, (E) infringement or dilution of any Copyright or Copyright licensed under any Copyright License, and (F) injury to the goodwill associated with any Copyright or any Copyright licensed under any Copyright License.

(b) In addition, to secure the prompt and complete payment, performance and observance of the Obligations and in order to induce Agent and Lenders as aforesaid, each Grantor hereby grants to Agent, for itself and the benefit of Lenders, a right of setoff, against the property of such Grantor held by Agent or any Lender, consisting of property described above in Section 2(a) now or hereafter in the possession or custody of or in transit to Agent or any Lender, for any purpose, including safekeeping, collection or pledge, for the account of such Grantor, or as to which such Grantor may have any right or power.

3. REPRESENTATIONS AND WARRANTIES. Each Grantor, jointly and severally, represents and warrants, as of the Closing Date, that (a) each Patent, (b) each Trademark that is registered or pending registration with the US Patent and Trademark Office, (c) each Copyright that is registered or pending registration with the US Copyright Office, (d) material unregistered trademarks, service marks and trade names, (e) material unregistered copyrights, (f) computer software (other than commercially available off-the-shelf software purchased or licensed for less than a total cost of \$100,000 in the aggregate); and (g) each License, is set forth on the schedules hereto. This Intellectual Property Security Agreement is effective to create a valid and continuing Lien on and, upon the filing hereof with the United States Patent and Trademark Office and the United States Copyright Office, as applicable and the filing of appropriate financing statements listed on Schedule I to the Security Agreement, perfected security interests in favor of Agent in all of Grantors' Patents, Trademarks and Copyrights and such perfected security interests are enforceable as such as against any and all creditors of, and purchasers from, Grantors. Upon filing of this Intellectual Property Security Agreement with the United States Patent and Trademark Office and the United States Copyright Office, as applicable and the filing of appropriate financing statements listed on Schedule I to the

Security Agreement, all action necessary or otherwise requested by Agent to protect and perfect Agent's Lien on Grantor's Patents, Trademarks and Copyrights shall have been duly taken.

In addition to any representations and warranties contained herein, each Grantor hereby acknowledges and affirms the representations and warranties made to Agent with respect to the Intellectual Property Collateral made in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

4. COVENANTS; SECURITY AGREEMENT. The security interests granted pursuant to this Intellectual Property Security Agreement are granted in conjunction with the security interests granted to Agent pursuant to the Security Agreement. In addition to the covenants contained herein, each Grantor hereby acknowledges and affirms the covenants of such Grantor with respect to the Intellectual Property Collateral in the Security Agreement, the terms and provisions of which are incorporated herein as if fully set forth herein. In addition, each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the security interest in the Intellectual Property Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein.

5. [INTENTIONALLY OMITTED.]

6. REINSTATEMENT. This Intellectual Property Security Agreement shall remain in full force and effect and continue to be effective should any petition be filed by or against any Grantor or other Credit Party for liquidation or reorganization, should any Grantor or other Credit Party become insolvent or make an assignment for the benefit of any creditor or creditors or should a receiver or trustee be appointed for all or any significant part of any Grantor's or other Credit Party's assets, and shall continue to be effective or be reinstated, as the case may be, if at any time payment and performance of the Obligations, or any part thereof, is, pursuant to applicable law, rescinded or reduced in amount, or must otherwise be restored or returned by any obligee of the Obligations, whether as a "voidable preference," "fraudulent conveyance," or otherwise, all as though such payment or performance had not been made. In the event that any payment, or any part thereof, is rescinded, reduced, restored or returned, the Obligations shall be reinstated and deemed reduced only by such amount paid and not so rescinded, reduced, restored or returned.

7. NOTICES. Whenever it is provided herein that any notice, demand, request, consent, approval, declaration or other communication shall or may be given to or served upon any of the parties by any other party, or whenever any of the parties desires to give or serve upon another any such communication with respect to this Intellectual Property Security Agreement, each such notice, demand, request, consent, approval, declaration or other communication shall be in writing and shall be addressed to the party to be notified at the address set forth in Annex I to the Credit Agreement (or such other address as may be substituted by notice given in the manner required by Section 11.10 of the Credit Agreement), and given in the manner required by Section 11.10 of the Credit Agreement.

8. ADDITIONAL GRANTORS. The initial Grantors hereunder are the Credit Parties as are signatories hereto on the date hereof. From time to time subsequent to the

date hereof, additional Credit Parties may become parties hereto, as additional Grantors (each, an "Additional Grantor"), by executing a counterpart of this Intellectual Property Security Agreement substantially in the form of Exhibit A attached hereto. Upon delivery of any such counterpart to Agent, notice of which is hereby waived by the Grantors, each Additional Grantor shall be a Grantor and shall be as fully a party hereto as if such Additional Grantor were an original signatory hereto. Each Grantor expressly agrees that its obligations arising hereunder shall not be affected or diminished by the addition or release of any other Grantor hereunder nor by any election of Agent not to cause any Credit Party or any other Person to become an Additional Grantor hereunder. This Intellectual Property Security Agreement shall be fully effective as to any Grantor that is or becomes a party hereto regardless of whether any other Person becomes or fails to become or ceases to be a Grantor hereunder.

9. TERMINATION OF THIS SECURITY AGREEMENT. Subject to Section 6 hereof, this Intellectual Property Security Agreement shall terminate upon the Termination Date.

10. NO STRICT CONSTRUCTION. The parties hereto have participated jointly in the negotiation and drafting of this Intellectual Property Security Agreement. In the event an ambiguity or question of intent or interpretation arises, this Intellectual Property Security Agreement shall be construed as if drafted jointly by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Intellectual Property Security Agreement.

11. ADVICE OF COUNSEL. Each of the parties represents to each other party hereto that it has discussed this Intellectual Property Security Agreement with its counsel.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

**PERFORMANCE FIBERS, INC.**

By: MLH  
Name: Steven Liff  
Title: Vice President - Finance

**PERFORMANCE FIBERS HOLDINGS, INC.**

By: MLH  
Name: Steven Liff  
Title: Vice President

**PERFORMANCE FIBERS ENTERPRISES, INC.**

By: MLH  
Name: Steven Liff  
Title: Vice President - Finance

Acknowledged and Agreed

**GENERAL ELECTRIC CAPITAL CORPORATION, as Agent**

By: \_\_\_\_\_  
Name:  
Its: Duly Authorized Signatory

IN WITNESS WHEREOF, each Grantor has caused this Intellectual Property Security Agreement to be executed and delivered by its duly authorized officer as of the date first set forth above.

**PERFORMANCE FIBERS, INC.**

By: \_\_\_\_\_  
Name:  
Title:

**PERFORMANCE FIBERS HOLDINGS, INC.**

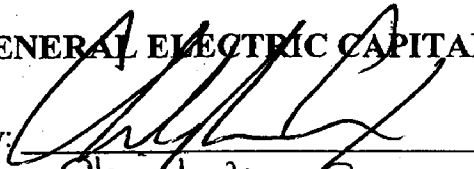
By: \_\_\_\_\_  
Name:  
Title:

**PERFORMANCE FIBERS ENTERPRISES,  
INC.**

By: \_\_\_\_\_  
Name:  
Title:

Acknowledged and Agreed

**GENERAL ELECTRIC CAPITAL CORPORATION, as Agent**

By:   
Name: Christopher Cox  
Its: Duly Authorized Signatory

**SCHEDULE I**  
**to**  
**INTELLECTUAL PROPERTY SECURITY AGREEMENT**  
**PATENT REGISTRATIONS AND PATENT APPLICATIONS**

**See attached.**

# PATENT LISTING

Tuesday, December 14, 2004

Case Number: 13870060

| <b>Title:</b> METHOD TO RECYCLE SPENT ETHYLENE GLYCOL                                                           |      |                       |                      |                  |               |          |           |                   |  |
|-----------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------|-------------------|--|
| <b>Inventors:</b> BUYALOS EDWARD J<br>PENDLEBURY DAVID<br>BOUKNIGHT LON K<br>BLAKE NEIL -<br>MCKEITHAN CLARENCE |      |                       |                      |                  |               |          |           |                   |  |
| Country                                                                                                         | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus | SubStatus<br>Date |  |
| United States                                                                                                   |      | 422328                | 9/23/1982            |                  |               | Inactive | Abandoned | 2/2/1987          |  |
| United States                                                                                                   | 01   | 006333                | 2/2/1987             |                  |               | Inactive | Abandoned | 12/17/1990        |  |
| United States                                                                                                   | 01   | 588635                | 9/26/1990            | 5236558          | 8/17/1993     | Granted  | Expires   | 8/17/2010         |  |

## PATENT LISTING

Case Number: 14150060

**Title:** IMPROVED PROCESS FOR HIGH SPEED MULTI-END POLYESTER HIGH PERFORMANCE TIRE AND INDUSTRIAL YARN

**Inventors:** ROWAN HUGH H  
NEAL JAMES G

| Country                      | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|------------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| * Australia                  | P 01 | 42023/89           | 7/26/1989         | 636852        | 9/6/1993   | Granted  | Expires        | 7/26/2009      |
| * Brazil                     | P 01 | PI8907707.5        | 7/26/1989         | PI8907707.5   | 12/29/1998 | Granted  | Expires        | 7/26/2009      |
| * Canada                     | 01   | 599471             | 5/11/1989         | 1328156       | 4/5/1994   | Granted  | Expires        | 4/5/2011       |
| * China P.R.                 | 01   | 89106904.6         | 8/31/1989         | ZL89106904.   | 9/12/2001  | Granted  | Expires        | 8/31/2009      |
| * European Patent Convention | X 01 | 89910037.4         | 7/26/1989         | EP0438421     |            | Inactive | Opposition     | 1/24/1997      |
| * France                     | X 01 | 89910037.4         | 7/26/1989         | EP0438421     | 4/24/1996  | Granted  | Expires        | 7/26/2009      |
| * Germany                    | X 01 | 89910037.4         | 7/26/1989         | P68926346.5   | 4/24/1996  | Granted  | Expires        | 7/26/2009      |
| * Great Britain              | X 01 | EP0438421          | 7/26/1989         | EP0438421     | 4/24/1996  | Granted  | Expires        | 7/26/2009      |
| * India                      | 01   | 176873             | 8/14/1989         | 176873        | 3/14/1997  | Granted  | Expires        | 8/14/2009      |
| * Indonesia                  | 01   | P-000407           | 10/5/1989         | ID0001790     | 6/19/1997  | Granted  | Expires        | 10/5/2009      |
| * Italy                      | X 01 | 89910037.4         | 7/26/1989         | EP0438421     | 4/24/1996  | Granted  | Expires        | 7/26/2009      |
| * Japan                      | P 01 | 509532/89          | 7/26/1989         | 2749168       | 2/20/1998  | Granted  | Expires        | 7/26/2009      |
| * Korea South                | P 01 | 701266/90          | 7/26/1989         | 136113        | 1/20/1998  | Granted  | Expires        | 4/28/2013      |
| * Mexico                     | 01   | 17783              | 10/2/1989         | 165164        | 10/29/1992 | Granted  | Expires        | 10/2/2009      |
| * Patent Cooperation Treaty  | P 01 | PCT/US89/0323      | 7/26/1989         |               |            | Inactive | National Phase | 3/25/1991      |
| * Spain                      | 01   | 8903162            | 9/19/1989         | 8903162       | 6/26/1990  | Granted  | Expires        | 9/19/2009      |
| * Switzerland                | X 01 | 89910037.4         | 7/26/1989         | EP0438421     | 4/24/1996  | Granted  | Expires        | 7/26/2009      |
| * Turkey                     | 01   | 89/790             | 10/4/1989         | 26223         | 1/27/1994  | Granted  | Expires        | 10/4/2009      |
| * United States              |      | 642982             | 8/21/1984         |               |            | Inactive | Abandoned      | 12/2/1988      |
| * United States              | 01   | 255281             | 10/13/1988        | 4851172       | 7/25/1989  | Granted  | Expires        | 7/25/2006      |

## PATENT LISTING

Case Number: 17870030

**Title:** FIBER FOR REINFORCING PLASTIC COMPOSITES AND REINFORCED  
PLASTIC COMPOSITES THEREFROM

**Inventors:** CORDOVA DAVID S  
COFFIN DAVID R  
LAZARUS S D  
YOUNG STEVEN A

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------|-------------------|
| Canada                     |      | 483235                | 6/5/1985             | 1260645          | 9/26/1989     | Granted  | Expires   | 9/26/2006         |
| European Patent Convention | E    | 85107090.4            | 6/8/1985             | EP0172332        | 8/21/1991     | Inactive | Lapsed    | 7/21/1994         |
| France                     | E    | 85107090.4            | 6/8/1985             | EP0172332        | 8/21/1991     | Inactive | Lapsed    | 7/21/1994         |
| Great Britain              | E    | 85107090.4            | 6/8/1985             | EP0172332        | 8/21/1991     | Inactive | Lapsed    | 7/21/1994         |
| Italy                      | E    | 85107090.4            | 6/8/1985             | EP0172332        | 8/21/1991     | Inactive | Abandoned | 12/14/1993        |
| Japan                      |      | 152157/85             | 7/10/1985            | 4657405          | 8/15/1989     | Granted  | Expires   | 8/15/2006         |
| United States              | 01   | 631978                | 7/18/1984            | 4880871          | 11/14/1989    | Granted  | Expires   | 12/21/2007        |
| United States              |      | 136080                | 12/21/1987           | P3583835.3       | 8/21/1991     | Inactive | Lapsed    | 7/21/1994         |
| West Germany               | E    | EP0172332             | 6/8/1985             |                  |               |          |           |                   |

PATENT LISTING

Case Number: 18470030

Title: POLYAMIDE YARN WITH ANTIOXIDANT FINISH  
Inventors: MARSHALL ROBERT M

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------|-------------------|
| Canada                     | E    | 517665                | 9/8/1986             | 1255458          | 6/13/1989     | Granted  | Expires   | 9/8/2006          |
| European Patent Convention |      | 86108525.6            | 6/23/1986            |                  |               | Inactive | Abandoned | 10/11/1989        |
| Korea South                |      | 7390/86               | 9/4/1986             |                  |               | Inactive | Abandoned | 10/11/1989        |
| Spain                      |      | 8600661               | 7/29/1986            |                  |               | Inactive | Lapsed    | 10/11/1989        |
| United States              |      | 773692                | 9/9/1985             | 4606972          | 8/19/1986     | Inactive | Lapsed    | 6/18/1993         |

# PATENT LISTING

Tuesday, December 14, 2004

Case Number: 18570030

| Title: CUTTING METHOD AND APPARATUS |      |                    |                   |               |            |          |           |                |  |
|-------------------------------------|------|--------------------|-------------------|---------------|------------|----------|-----------|----------------|--|
| Inventors: BOGGS BERYL A            |      |                    |                   |               |            |          |           |                |  |
| Country                             | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus | SubStatus Date |  |
| Canada                              |      | 485069             | 6/25/1985         | 1237978       | 6/14/1988  | Granted  | Expires   | 6/25/2005      |  |
| European Patent Convention          | E    | 85108433.5         | 7/8/1985          |               |            | Inactive | Abandoned | 1/18/1989      |  |
| Japan                               |      | 157983/85          | 7/17/1985         |               |            | Inactive | Abandoned | 1/18/1989      |  |
| United States                       |      | 633835             | 7/24/1984         |               |            | Inactive | Abandoned | 12/4/1985      |  |

## PATENT LISTING

Case Number: 20110030

Title: WET ABRASION RESISTANT YARN AND CORDAGE

Inventors: MARSHALL ROBERT M  
CORDOVA COLEEN WOOD

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------|-------------------|
| Canada                     |      | 520784                | 10/17/1986           | 1284255          | 5/21/1991     | Granted  | Expires   | 5/21/2008         |
| European Patent Convention | E    | 86111014.6            | 8/9/1986             | EP0220400        |               | Inactive |           |                   |
| France                     | E    | 86111014.6            | 8/9/1986             | EP0220400        | 3/4/1992      | Granted  | Expires   | 8/9/2006          |
| Great Britain              | E    | 86111014.6            | 8/9/1986             | EP0220400        | 3/4/1992      | Granted  | Expires   | 8/9/2006          |
| Italy                      | E    | 86111014.6            | 8/9/1986             | EP0220400        | 3/4/1992      | Granted  | Expires   | 8/9/2006          |
| Korea South                |      | 8888/86               | 10/23/1986           | 30629            | 12/8/1989     | Granted  | Expires   | 10/23/2006        |
| Spain                      |      | 8602751               | 10/24/1986           | 8602751/4        | 9/22/1988     | Granted  | Expires   | 10/24/2006        |
| United States              |      | 791007                | 10/24/1985           | 4767646          | 8/30/1988     | Granted  | Expires   | 10/24/2005        |
| United States              | 01   | 194241                | 5/16/1988            | 4960431          | 10/2/1990     | Granted  | Expires   | 10/2/2007         |
| West Germany               | E    | EP0220400             | 8/9/1986             | P3684089.0       | 3/4/1992      | Granted  | Expires   | 8/9/2006          |

PATENT LISTING

Tuesday, December 14, 2004

Case Number: 20540030

Title: FIBER FOR COMPOSITE REINFORCEMENT WITH ANTI-BLOCKING FINISH

Inventors: MARSHALL ROBERT M

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| United States |      | 794366                | 11/4/1985            | 4873144          | 10/10/1989    | Granted | Expires   | 10/10/2006        |

PATENT LISTING

Case Number: 21190030

Title: WINDER FLY WASTE MANAGEMENT SYSTEM

Inventors: HARRIS PAUL S  
STEVENS L E

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status              | SubStatus            | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------------------|----------------------|-------------------|
| United States | 01   | 924387                | 10/29/1986           | 4858838          | 8/22/1989     | Inactive<br>Granted | Abandoned<br>Expires | 3/24/1988         |
| United States |      | 175654                | 3/24/1988            |                  |               |                     |                      | 10/29/2006        |

## PATENT LISTING

Case Number: 21940030

Title: HIGH STRENGTH POLYESTER YARN FOR IMPROVED FATIGUE RESISTANCE

Inventors: BUYALOS EDWARD J  
MILLURE DAVID W  
NEAL JAMES G  
ROWAN HUGH H

| Country                    | Type   | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus  | SubStatus Date |
|----------------------------|--------|--------------------|-------------------|---------------|------------|----------|------------|----------------|
| Australia                  | P 02   | 43027/89           | 9/15/1989         | 638680        | 11/1/1993  | Granted  | Expires    | 9/15/2009      |
| Brazil                     | P 02   | PI8907812.8        | 9/15/1989         | PI8907812.8   | 7/28/1998  | Granted  | Expires    | 9/15/2009      |
| Canada                     | 02     | 2002165            | 11/3/1989         | 2002165       | 9/12/2000  | Granted  | Expires    | 11/3/2009      |
| China P.R.                 | 02     | 89107567.4         | 9/29/1989         | 89107567.4    | 3/5/1993   | Granted  | Expires    | 9/29/2009      |
| European Patent Convention | X 02   | 89910741.1         | 9/15/1989         | EP0447402     |            | Inactive | Opposition | 8/18/1993      |
| France                     | X 02   | 89910741.1         | 9/15/1989         | EP0447402     | 8/18/1993  | Granted  | Expires    | 9/15/2009      |
| Great Britain              | X 02   | 89910741.1         | 9/15/1989         | EP0447402     | 8/18/1993  | Granted  | Expires    | 9/15/2009      |
| Hong Kong                  | C X 02 | 98106717.2         | 12/17/1998        | 1007581       | 4/16/1999  | Granted  | Expires    | 9/15/2009      |
| India                      | 02     | 176264             | 9/20/1989         | 176264        | 9/27/1996  | Granted  | Expires    | 9/20/2009      |
| Indonesia                  | 02     | P-000402           | 9/21/1989         | ID0001604     | 5/2/1997   | Granted  | Expires    | 9/21/2009      |
| Italy                      | X 02   | 89910741.1         | 9/15/1989         | EP0447402     | 8/18/1993  | Granted  | Expires    | 9/15/2009      |
| Japan                      | P 02   | 510159/89          | 9/15/1989         | 2904522       | 3/28/1999  | Granted  | Expires    | 9/15/2009      |
| Korea South                | P 02   | 701726/90          | 9/15/1989         | 140228        | 3/10/1998  | Granted  | Expires    | 3/10/2013      |
| Mexico                     | 02     | 18602              | 12/6/1989         | 165353        | 11/5/1992  | Granted  | Expires    | 12/6/2009      |
| Netherlands                | X 02   | 89910741.1         | 9/15/1989         | EP0447402     | 8/18/1993  | Granted  | Expires    | 9/15/2009      |
| Patent Cooperation Treaty  | P 02   | PCT/US89/0404      | 9/15/1989         |               |            | Inactive |            |                |
| Spain                      | 02     | 8903899            | 11/16/1989        | 8903899       | 12/21/1990 | Granted  | Expires    | 11/16/2009     |
| Switzerland                | X 02   | 89910741.1         | 9/15/1989         | EP0447402     | 8/18/1993  | Granted  | Expires    | 9/15/2009      |
| Taiwan                     | 02     | 78107593           | 10/3/1989         | NI52154       | 3/3/1992   | Granted  | Expires    | 10/2/2009      |
| Thailand                   | 02     | 009415             | 9/29/1989         |               |            | Filed    |            |                |
| Turkey                     | 02     | 979/89             | 11/29/1989        | 26193         | 1/26/1994  | Granted  | Expires    | 11/29/2009     |
| United States              |        | 057575             | 6/2/1987          |               |            | Inactive | Abandoned  | 8/10/1987      |
| United States              | 01     | 057603             | 6/3/1987          |               |            | Inactive | Abandoned  | 2/1/1989       |
| United States              | 01     | 280764             | 12/7/1988         | 4975326       | 12/4/1990  | Granted  | Expires    | 12/4/2007      |

PATENT LISTING

Case Number: 21940030

|               |      |           |           |             |           |         |         |           |      |
|---------------|------|-----------|-----------|-------------|-----------|---------|---------|-----------|------|
| United States | 02   | 281845    | 12/8/1988 | 4867936     | 9/19/1989 | Granted | Expires | 6/2/2007  | 4700 |
| United States | 02   | 588869    | 9/27/1990 | 5033523     | 7/23/1991 | Granted | Expires | 7/23/2008 | 4700 |
| West Germany  | X 02 | EP0447402 | 9/15/1989 | P68908567.2 | 8/18/1993 | Granted | Expires | 9/15/2009 | 4700 |

## PATENT LISTING

Case Number: 23260030

**Title:** REDUCTION OF CARBOXYL END GROUPS IN POLYESTER WITH LACTIM ETHERS

**Inventors:** MOHAJER YOUSEF  
LAZARUS S D  
COOKE ROBERT S

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|-----------|----------------|
| Australia                  | P    | 29375/89           | 12/5/1988         | 611996        | 10/21/1991 | Granted  | Expres    | 12/5/2008      |
| Brazil                     | P    | PI8807891          | 12/5/1988         | PI8807891     | 4/25/1995  | Granted  | Expres    | 12/5/2008      |
| Canada                     |      | 592134             | 2/27/1989         | 1320028       | 7/13/1993  | Granted  | Expres    | 7/13/2010      |
| China P.R.                 |      | 89100336.3         | 1/18/1989         | ZL89100336    | 7/22/1995  | Granted  | Expres    | 1/18/2009      |
| European Patent Convention | X    | 89901687.7         | 12/5/1988         | EP0395726     |            | Inactive |           |                |
| France                     | X    | 89901687.7         | 12/5/1988         | EP0395726     | 7/15/1992  | Granted  | Expres    | 12/5/2008      |
| Great Britain              | X    | 89901687.7         | 12/5/1988         | EP0395726     | 7/15/1992  | Granted  | Expres    | 12/5/2008      |
| India                      |      | 174567             | 12/7/1988         | 174567        | 9/28/1995  | Inactive |           |                |
| Indonesia                  |      | P-000403           | 12/8/1988         | ID0001570     | 5/11/1997  | Granted  | Expres    | 12/7/2002      |
| Italy                      | X    | 89901687.7         | 12/5/1988         | EP0395726     | 7/15/1992  | Granted  | Expres    | 12/6/2008      |
| Japan                      | P    | 501573/89          | 12/5/1988         | 2714463       | 10/31/1997 | Granted  | Expres    | 12/5/2008      |
| Korea South                | P    | 701988/89          | 12/5/1988         | 105365        | 10/1/1996  | Granted  | Expres    | 12/5/2008      |
| Patent Cooperation Treaty  | P    | PCT/US88/0433      | 12/5/1988         |               |            | Granted  | Expres    | 5/6/2011       |
| Spain                      |      | 8900057            | 1/9/1989          | 8900057       | 9/9/1989   | Inactive |           |                |
| Sweden                     | X    | 89901687.7         | 12/5/1988         | EP0395726     | 7/15/1992  | Granted  | Expres    | 1/9/2009       |
| Taiwan                     |      | 77108476           | 12/5/1988         | NI44095       | 5/6/1991   | Granted  | Expres    | 12/5/2008      |
| Thailand                   |      | 007916             | 12/23/1988        | 8088          | 8/9/1998   | Granted  | Expres    | 12/4/2008      |
| Turkey                     |      | 5689               | 1/31/1989         | 24388         | 9/24/1991  | Granted  | Expres    | 12/23/2008     |
| United States              |      | 161553             | 2/29/1988         | 4839124       | 6/13/1989  | Granted  | Expres    | 1/31/2009      |
| West Germany               | X    | EP0395726          | 12/5/1988         | P3872885.0    | 7/15/1992  | Granted  | Expres    | 2/29/2008      |
|                            |      |                    |                   |               |            | Granted  | Expres    | 12/5/2008      |

# PATENT LISTING

Tuesday, December 14, 2004

Case Number: 23890030

**Title:** DIMENSIONALLY STABLE POLYESTER YARN FOR HIGH TENACITY TREATED CORDS

**Inventors:** TURNER JAMES M  
RIM PETER B  
NELSON CHARLES J  
BHEDA JAYENDRA H

| Country                      | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus | SubStatus Date |
|------------------------------|------|--------------------|-------------------|---------------|------------|----------|-----------|----------------|
| * Australia                  | P    | 39601/89           | 6/23/1989         | 634484        | 6/18/1993  | Granted  | Expires   | 6/23/2009      |
| * Australia                  | 01   | 16081/92           | 6/23/1989         | 637546        | 9/17/1993  | Granted  | Expires   | 6/23/2009      |
| * Brazil                     | P    | P18907519          | 6/23/1989         | P18907519-6   | 8/22/2000  | Granted  | Expires   | 8/22/2010      |
| * Canada                     |      | 604352             | 6/29/1989         | 1336036       | 6/27/1995  | Granted  | Expires   | 6/27/2012      |
| * China P.R.                 |      | 89104572.4         | 6/30/1989         | ZL89104572    | 5/28/1997  | Granted  | Expires   | 6/30/2009      |
| * European Patent Convention | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * France                     | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * Great Britain              | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * India                      |      | 175436             | 6/19/1989         | 175436        | 3/11/1996  | Granted  | Expires   | 6/19/2009      |
| * Indonesia                  |      | P-000401           | 7/3/1989          | ID0000959     | 9/26/1996  | Granted  | Expires   | 7/3/2009       |
| * Italy                      | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * Japan                      | P    | 508007/89          | 6/23/1989         | 2914385       | 4/16/1999  | Granted  | Expires   | 6/23/2009      |
| * Korea South                | P    | 700417/90          | 6/23/1989         | 123960        | 9/22/1997  | Granted  | Expires   | 5/8/2012       |
| * Mexico                     |      | 16626              | 6/28/1989         | 169611        | 7/28/1993  | Granted  | Expires   | 6/23/2009      |
| * Netherlands                | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * Patent Cooperation Treaty  | P    | PCT/US89/0278      | 6/23/1989         |               |            | Inactive |           |                |
| * Spain                      |      | 8902343            | 7/3/1989          | 8902343       | 5/18/1990  | Granted  | Expires   | 7/3/2009       |
| * Switzerland                | X    | 89908326.5         | 6/23/1989         | EP0423213     | 5/27/1992  | Granted  | Expires   | 6/23/2009      |
| * Taiwan                     |      | 78104692           | 6/19/1989         | N141931       | 1/23/1991  | Granted  | Expires   | 6/18/2009      |
| * Thailand                   |      | 008941             | 7/3/1989          |               |            | Filed    |           |                |
| * Turkey                     |      | 34948              | 7/3/1989          | 24366         | 9/20/1991  | Granted  | Expires   | 7/3/2009       |
| * United States              | 01   | 215178             | 7/5/1988          |               |            | Inactive | Abandoned | 10/7/1988      |
| * United States              |      | 237348             | 8/29/1988         |               |            | Inactive | Abandoned | 12/23/1991     |
| * United States              | 01   | 810600             | 12/19/1991        |               |            | Inactive | Abandoned | 8/23/1993      |

Held Invalid

# PATENT LISTING

Tuesday, December 14, 2004

Case Number: 23890030

|                 |    |           |            |             |           |          |           |           |
|-----------------|----|-----------|------------|-------------|-----------|----------|-----------|-----------|
| * United States | 01 | 813066    | 12/23/1991 | 5234784     | 8/10/1993 | Granted  | Expires   | 8/10/2010 |
| * United States | 02 | 08/065719 | 5/24/1993  | 5403659     | 4/4/1995  | Granted  | Expires   | 4/4/2012  |
| * United States | 02 | 08/110471 | 8/23/1993  |             |           | Inactive | Abandoned | 2/22/1994 |
| * United States | 03 | 08/200853 | 2/22/1994  |             |           | Inactive | Abandoned | 9/12/1995 |
| * United States | 04 | 08/219861 | 3/30/1994  |             |           | Filed    | Abandoned | 3/30/1994 |
| * United States | 05 | 08/527295 | 9/12/1995  | 5630976     | 5/20/1997 | Granted  | Expires   | 7/5/2008  |
| * United States | 05 | 08/844744 | 4/21/1997  |             |           | Inactive | Abandoned | 6/21/2000 |
| * United States | 06 | 09/571843 | 5/16/2000  | 6403006     | 6/11/2002 | Granted  | Expires   | 7/5/2008  |
| * United States | 07 | 09/902825 | 7/10/2001  |             |           | Inactive | Abandoned | 6/5/2003  |
| United States   | 08 | 10/140841 | 5/7/2002   |             |           | Filed    |           |           |
| United States   | 09 | 10/216254 | 8/9/2002   |             |           | Inactive | Abandoned | 11/5/2003 |
| United States   | 10 | 10/440642 | 5/19/2003  | 6828021     | 12/7/2004 | Granted  | Expires   | 7/5/2008  |
| United States   | 11 | 10/980546 | 11/3/2004  |             |           | Filed    |           |           |
| * West Germany  | X  | EP0423213 | 6/23/1989  | P68901646.8 | 5/27/1992 | Granted  | Expires   | 6/23/2009 |

Held Invalid

PATENT LISTING

Case Number: 23950030

**Title:** DIMENSIONALLY STABLE POLYESTER YARN FOR HIGHLY DIMENSIONALLY STABLE TREATED CORDS AND COMPOSITE MATERIALS SUCH AS TIRES MADE THEREFROM

**Inventors:** NELSON CHARLES J  
BHEDA JAYENDRA H  
RIM PETER B  
TURNER JAMES M

| Country                      | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus | SubStatus Date |
|------------------------------|------|--------------------|-------------------|---------------|------------|----------|-----------|----------------|
| * Australia                  | P    | 43095/89           | 9/15/1989         | 638942        | 11/9/1993  | Granted  |           | 9/15/2009      |
| * Brazil                     | P    | PI8907744          | 9/15/1989         | PI8907744-0   | 5/16/2000  | Granted  | Expires   | 5/16/2010      |
| * Canada                     |      | 613559             | 9/27/1989         | 1335031       | 4/4/1995   | Granted  | Expires   | 4/4/2012       |
| * China P.R.                 |      | 89107266.7         | 9/12/1989         | ZL89107266.   | 4/17/1997  | Granted  | Expires   | 9/12/2009      |
| * China P.R.                 | 01   | 94119632.1         | 9/12/1989         | ZL94119632.   | 5/9/2001   | Granted  | Expires   | 9/12/2009      |
| * European Patent Convention |      | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * France                     | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Germany                    | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Great Britain              | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Hong Kong                  | X    | 96106716.3         | 12/17/1998        | 1007580       | 4/16/1999  | Granted  | Expires   | 9/15/2009      |
| * India                      | C    | 176605             | 8/31/1989         | 176605        | 2/6/1997   | Granted  | Expires   | 8/31/2009      |
| * Indonesia                  |      | P-000408           | 10/19/1989        | ID0001725     | 5/6/1997   | Granted  | Expires   | 10/19/2009     |
| * Italy                      | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Japan                      | P    | 509907/89          | 9/15/1989         | 2907912       | 4/2/1999   | Granted  | Expires   | 9/15/2009      |
| * Korea South                | P    | 701382/90          | 9/15/1989         | 140229        | 3/10/1998  | Granted  | Expires   | 3/10/2013      |
| * Mexico                     |      | 18059              | 10/23/1989        | 168854        | 10/23/1993 | Granted  | Expires   | 10/23/2009     |
| * Netherlands                | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Patent Cooperation Treaty  | P    | PCT/US89/0403      | 9/15/1989         |               |            | Inactive |           |                |
| * Spain                      |      | 8903333            | 10/4/1989         | 8903333       | 4/18/1991  | Granted  | Expires   | 10/4/2009      |
| * Switzerland                | X    | 89910541.5         | 9/15/1989         | EP0440671     | 1/15/1997  | Granted  | Expires   | 9/15/2009      |
| * Taiwan                     |      | 78107204           | 9/19/1989         | NI55693       | 7/29/1992  | Granted  | Expires   | 9/18/2009      |
| * Thailand                   |      | 9283               | 9/7/1989          | 8881          | 4/2/1999   | Granted  | Expires   | 9/7/2009       |
| * Turkey                     |      | 837189             | 10/20/1989        | 27371         | 1/17/1995  | Granted  | Expires   | 10/20/2009     |

PATENT LISTING

Case Number: 23950030

|                |    |        |            |         |            |         |         |            |      |
|----------------|----|--------|------------|---------|------------|---------|---------|------------|------|
| *United States | 01 | 263756 | 10/28/1988 | 5067538 | 11/28/1991 | Granted | Expires | 11/26/2008 | 4700 |
| *United States |    | 736983 | 7/29/1991  | 5132067 | 7/21/1992  | Granted | Expires | 7/21/2009  | 4700 |

PATENT LISTING

Tuesday, December 14, 2004

Case Number: 24070030

Title: POLYAMIDE YARN WITH NON-YELLOWING ANTIOXIDANT FINISH

Inventors: MARSHALL ROBERT M

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| United States |      | 214980                | 7/5/1988             | 4886707          | 12/12/1989    | Granted | Expires   | 7/5/2008          |

## PATENT LISTING

Case Number: 242000030

Title: PROCESS FOR DIMENSIONALLY STABLE POLYESTER YARN

Inventors: HAMLYN MAXWELL C  
LUCK THOMAS H  
NELSON CHARLES J

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus  | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|------------|-------------------|
| Australia                  | P    | 49698/90              | 11/17/1989           | 635241           | 7/12/1993     | Granted  | Expires    | 11/17/2009        |
| Brazil                     | P    | PI8907870-5           | 11/17/1989           | PI8907870-5      | 11/24/1998    | Granted  | Expires    | 11/17/2009        |
| Canada                     |      | 2004942               | 12/8/1989            | 2004942          | 10/5/1999     | Granted  | Expires    | 12/8/2009         |
| China P.R.                 |      | 89108756.7            | 11/20/1989           | 89108756.7       | 8/1/1993      | Granted  | Expires    | 11/20/2009        |
| European Patent Convention | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Opposition | 6/21/1993         |
| France                     | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| Great Britain              | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| India                      |      | 176888                | 11/17/1989           | 176888           | 3/14/1997     | Granted  | Expires    | 11/17/2009        |
| Indonesia                  |      | P-000387              | 9/27/1991            | ID0001015        | 10/17/1996    | Granted  | Expires    | 9/27/2011         |
| Italy                      | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| Korea South                | P    | 701964/90             | 11/17/1989           | 140230           | 3/10/1998     | Granted  | Expires    | 3/10/2013         |
| Mexico                     |      | 18788                 | 12/20/1989           | 170066           | 8/5/1993      | Granted  | Expires    | 12/20/2009        |
| Netherlands                | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| Patent Cooperation Treaty  | P    | PCT/US89/0508         | 11/17/1989           |                  |               | Inactive | Secrecy    | 8/27/1998         |
| Spain                      | X    | EP0452405             | 11/17/1989           | 2034855-X        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| Switzerland                | X    | 90902093.5            | 11/17/1989           | EP0452405        | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |
| Taiwan                     |      | 78109657              | 12/13/1989           | NI43515          | 4/13/1991     | Granted  | Expires    | 12/12/2009        |
| Thailand                   |      | 009720                | 11/17/1989           | 10834            | 8/15/2001     | Granted  | Expires    | 11/17/2009        |
| Turkey                     |      | 73/90                 | 12/27/1989           | 25058            | 9/22/1992     | Granted  | Expires    | 12/27/2009        |
| United States              |      | 292864                | 1/3/1989             |                  |               | Inactive | Abandoned  | 6/28/1990         |
| United States              | 01   | 545321                | 6/26/1990            | 5085818          | 2/4/1992      | Granted  | Expires    | 2/4/2009          |
| West Germany               | X    | EP0452405             | 11/17/1989           | P68902927.6      | 9/16/1992     | Inactive | Lapsed     | 8/27/1998         |

PATENT

REEL: 016195 FRAME: 0380

PATENT LISTING

Case Number: 24970030

**Title:** REDUCTION OF CARBOXYL END GROUPS IN POLYESTER WITH DILACTIM ETHERS

**Inventors:** MOHAJER YOUSEF LAZARUS S D

| Country       | Type | Application Number | Application Filed | Patent Number | Grant Date | Status  | SubStatus | SubStatus Date |
|---------------|------|--------------------|-------------------|---------------|------------|---------|-----------|----------------|
| United States |      | 292863             | 1/3/1989          | 4929715       | 5/29/1990  | Granted | Expires   | 1/3/2009       |

PATENT LISTING

Case Number: 28930082

**Title:** IMPROVED IMPACT RESISTANT WOVEN BODY  
**Inventors:** PREVORSEK DUSAN CIRIL  
KWON YOUNG DOO  
CHIN HONG BAI

| Country       | Type | Application Number | Application Filed | Patent Number | Grant Date | Status  | SubStatus | SubStatus Date |
|---------------|------|--------------------|-------------------|---------------|------------|---------|-----------|----------------|
| United States |      | 755249             | 9/5/1991          | 5260122       | 11/9/1993  | Granted | Expires   | 9/5/2011       |

## PATENT LISTING

Tuesday, December 14, 2004

Case Number: 29640030

Title: HIGH MODULUS POLYESTER YARN FOR TIRE CORDS AND COMPOSITES

Inventors: RIM PETER B  
 NELSON CHARLES J  
 MOHAJER YOUSEF  
 YOUNG JOHN A

| Country                      | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|------------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| * Australia                  | P 01 | 55810/96              | 12/22/1992           | 697934           | 2/4/1999      | Granted  | Expires        | 12/22/2012        |
| * Australia                  | P 01 | 33312/93              | 12/22/1992           |                  |               | Inactive | Abandoned      | 6/28/1996         |
| * Brazil                     | P 01 | P19207038-8           | 12/22/1992           | P19207038-8      | 7/11/2000     | Granted  | Expires        | 12/22/2012        |
| * Canada                     | P 01 | 2126328               | 12/22/1992           | 2126328          | 5/21/2002     | Granted  | Expires        | 12/22/2012        |
| * China P.R.                 | 01   | 93101268.6            | 1/21/1993            | ZL93101268.6     | 1/22/2000     | Granted  | Expires        | 1/21/2013         |
| * European Patent Convention | X 01 | 93901119.3            | 12/22/1992           | EP0623179        |               | Inactive | Opposition     | 9/4/1996          |
| * France                     | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Germany                    | X 01 | EP0623179             | 12/22/1992           | P69213474.3      | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Great Britain              | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Hong Kong                  | X 01 | 98106715.4            | 6/23/1998            | 1007579          | 4/16/1999     | Granted  | Expires        | 12/22/2012        |
| * India                      | C X  | 1261/DEL/92           | 12/29/1992           | 185928           | 12/21/2001    | Granted  | Expires        | 12/29/2012        |
| * Italy                      | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Korea South                | P 01 | 702476/94             | 12/22/1992           | 235758           | 9/28/1999     | Granted  | Expires        | 12/22/2012        |
| * Mexico                     | 01   | 93-0142               | 1/13/1993            | 183465           | 12/4/1996     | Granted  | Expires        | 1/13/2013         |
| * Netherlands                | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Patent Cooperation Treaty  | P 01 | PCT/US92/1106         | 12/22/1992           |                  |               | Inactive | National Phase | 6/9/1994          |
| * Spain                      | X 01 | EP0623179             | 12/22/1992           | 2091589-6        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Switzerland                | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Taiwan                     | 01   | 82100327              | 1/19/1993            | N166402          | 9/26/1994     | Granted  | Expires        | 1/18/2013         |
| * Thailand                   | 01   | 17851                 | 1/7/1993             |                  |               | Filed    |                |                   |
| * Turkey                     | 01   | 93/65                 | 1/20/1993            |                  |               | Granted  | Expires        | 1/20/2013         |
| * United States              |      | 814872                | 12/30/1991           |                  |               | Inactive | Abandoned      | 1/21/1992         |
| * United States              | 01   | 822799                | 1/21/1992            | 28032            | 12/11/1995    | Inactive | Abandoned      | 9/13/1993         |

PATENT LISTING

Case Number: 29640030

|                 |    |           |           |         |           |         |                       |
|-----------------|----|-----------|-----------|---------|-----------|---------|-----------------------|
| * United States | 01 | 08/120708 | 9/13/1993 | 5397527 | 3/14/1995 | Granted | Expires 3/14/20124700 |
|-----------------|----|-----------|-----------|---------|-----------|---------|-----------------------|

## PATENT LISTING

Case Number: 30440030

Title: PRODUCTION OF HIGH TENACITY, LOW SHRINK POLYESTER FIBER

Inventors: NEAL JAMES G

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------|-------------------|
| France        |      | 9103333               | 3/19/1991            | 9103333          | 2/2/1996      | Granted  | Expires   | 3/19/2011         |
| Germany       |      | P4108676.7            | 3/16/1991            |                  |               | Filed    |           |                   |
| Italy         |      | TO91A000205           | 3/25/1991            | 1245024          | 9/13/1994     | Granted  | Expires   | 3/25/2011         |
| Netherlands   |      | 9100489               | 3/19/1991            | 194552           | 7/2/2002      | Granted  | Expires   | 3/19/2011         |
| Spain         |      | 9100714               | 3/21/1991            | 9100714          | 5/29/1992     | Granted  | Expires   | 3/21/2011         |
| Switzerland   |      | 813/91-0              | 3/18/1991            | 687207           | 10/15/1996    | Granted  | Expires   | 3/18/2011         |
| United States |      | 499147                | 3/28/1990            |                  |               | Inactive | Abandoned | 7/9/1991          |
| United States | 01   | 659544                | 2/22/1991            | 5277858          | 1/11/1994     | Granted  | Expires   | 1/11/2011         |

**Case Number: 33160030**

**Title:** ABRASION RESISTANT POLYESTER YARN AND CORDAGE

**Inventors:** MARSHALL ROBERT M

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| United States |      | 701919                | 5/17/1991            | 5240660          | 8/31/1993     | Granted | Expires   | 5/17/2011         |

## PATENT LISTING

Case Number: 41700030

Title: DIBLOCK POLYESTER COPOLYMER AND PROCESS FOR MAKING

Inventors: TANG WEIMING

MARES F

MORGAN ROBERT C

| Country                    | Type   | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|--------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Argentina                  | 01     | P980100178            | 1/15/1998            |                  |               | Filed    |                |                   |
| Australia                  | P 01   | 57075/98              | 12/17/1997           | 740431           | 2/14/2002     | Granted  | Expires        | 12/17/2017        |
| Canada                     | P 01   | 2284033               | 12/17/1997           |                  |               | Filed    |                |                   |
| China P.R.                 | P 01   | 97182196.8            | 12/17/1997           | ZL97182196.      | 7/9/2003      | Granted  | Expires        | 12/17/2017        |
| European Patent Convention | X 01   | 97953301.5            | 12/17/1997           |                  |               | Filed    |                |                   |
| Hong Kong                  | C P 01 | 00106333.3            | 1/5/2004             | HK1029127        | 4/8/2004      | Granted  | Expires        | 12/17/2017        |
| Japan                      | P 01   | 540476/98             | 12/17/1997           | 3219777          | 8/10/2001     | Granted  | Expires        | 12/17/2017        |
| Korea South                | P 01   | 7008497/99            | 12/17/1997           |                  |               | Filed    |                |                   |
| Mexico                     | P 01   | 998516                | 12/17/1997           | 207091           | 3/12/2002     | Granted  | Expires        | 12/17/2017        |
| New Zealand                | P 01   | 337941                | 12/17/1997           | 337941           | 9/6/2001      | Granted  | Expires        | 12/17/2017        |
| Patent Cooperation Treaty  | P 01   | PCT/US97/2338         | 12/17/1997           |                  |               | Inactive | National Phase | 9/28/1999         |
| South Africa               | 01     | 97/11506              | 12/22/1997           | 5869582          | 6/30/1999     | Granted  | Expires        | 12/22/2017        |
| Taiwan                     | 01     | 86119071              | 12/17/1997           | NI108741         | 3/22/2000     | Granted  | Expires        | 12/16/2017        |
| United States              | 01     | 08/819066             | 3/18/1997            | 5869582          | 2/9/1999      | Granted  | Expires        | 1/22/2017         |
| United States              |        | 03/788895             | 4/18/1997            |                  |               | Inactive | Abandoned      | 8/18/1998         |
| United States              | 01     | 08/788895             | 8/18/1998            |                  |               | Filed    | Abandoned      | 4/9/1999          |

## PATENT LISTING

Case Number: 41710030

Title: LOAD LEVELING YARNS AND WEBBINGS

Inventors: WEIMING TANG

MARES F

MORGAN ROBERT C

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Argentina                  | P    | P980100179            | 1/15/1998            |                  |               | Filed    |                |                   |
| Australia                  |      | 56158/98              | 12/17/1997           | 731254           | 7/12/2001     | Granted  | Expires        | 12/17/2017        |
| Austria                    | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Belgium                    | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Canada                     | P    | 2284212               | 12/17/1997           |                  |               | Filed    |                |                   |
| China P.R.                 | P    | 97182175.5            | 12/17/1997           | ZL97182175.      | 1/14/2004     | Granted  | Expires        | 12/17/2017        |
| Denmark                    | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| European Patent Convention | X    | 97952580.5            | 12/17/1997           | EP0968106        |               | Inactive | National Phase | 5/14/2003         |
| Finland                    | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| France                     | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Germany                    | X    | EP0968106             | 12/17/1997           | P69722037.0      | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Great Britain              | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Greece                     | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Hong Kong                  | C    | 01106144.1            | 8/30/2001            | HK1035352        | 11/19/2004    | Granted  | Expires        | 12/17/2017        |
| Ireland                    | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Italy                      | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Japan                      | P    | 540477/98             | 12/17/1997           |                  |               | Filed    |                |                   |
| Korea South                | P    | 7008482/99            | 12/17/1997           |                  |               | Filed    |                |                   |
| Luxembourg                 | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Mexico                     | P    | 998518                | 12/17/1997           |                  |               | Filed    |                |                   |
| Monaco                     | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| Netherlands                | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| New Zealand                | X    | 337768                | 12/17/1997           | 337768           | 3/12/2002     | Granted  | Expires        | 12/17/2017        |
| Patent Cooperation Treaty  | P    | PCT/US97/2367         | 12/17/1997           |                  |               | Inactive | National Phase | 9/9/1999          |
| Portugal                   | X    | 97952580.5            | 12/17/1997           | EP0968106        | 5/14/2003     | Granted  | Expires        | 12/17/2017        |
| South Africa               |      | 11513/97              | 12/22/1997           | 11513/97         | 7/28/1999     | Granted  | Expires        | 12/22/2017        |

PATENT

REEL: 016195 FRAME: 0388

# PATENT LISTING

Tuesday, December 14, 2004

Case Number: 41710030

|               |    |            |            |           |            |         |         |            |
|---------------|----|------------|------------|-----------|------------|---------|---------|------------|
| Spain         | X  | 97952580.5 | 12/17/1997 | EP0968106 | 5/14/2003  | Granted | Expires | 12/17/2017 |
| Sweden        | X  | 97952580.5 | 12/17/1997 | EP0968106 | 5/14/2003  | Granted | Expires | 12/17/2017 |
| Switzerland   | X  | 97952580.5 | 12/17/1997 | EP0968106 | 5/14/2003  | Granted | Expires | 12/17/2017 |
| Taiwan        |    | 86119070   | 12/17/1997 | NI113477  | 7/28/2000  | Granted | Expires | 12/16/2017 |
| United States |    | 08/819931  | 3/18/1997  | 5830811   | 11/3/1998  | Granted | Expires | 3/18/2017  |
| United States | 01 | 09/042158  | 3/13/1998  | 6057252   | 5/2/2000   | Granted | Expires | 3/18/2017  |
| United States | 01 | 09/538581  | 3/29/2000  | 6312806   | 11/6/2001  | Granted | Expires | 3/18/2017  |
| United States | 02 | 09/945866  | 9/4/2001   | 6492022   | 12/10/2002 | Granted | Expires | 3/18/2017  |

PATENT LISTING

Case Number: 44240030

Title: COMPOSITE COMPRISING ORGANIC FIBER HAVING A LOW TWIST MULTIPLIER AND IMPROVED COMPRESSIVE MODULUS

Inventors: SOCCI EDWARD P  
PRATT JEFFREY D  
GOLDEN THOMAS H  
KWON YOUNG D  
NELSON CHARLES J  
JHAVERI UDAY B

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| Australia                  | P    | 42256/00           | 4/7/2000          | 763281        | 10/30/2003 | Granted  | Expires        | 4/7/2020       |
| China P.R.                 | P    | 00808578.1         | 4/7/2000          |               |            | Filed    |                |                |
| European Patent Convention | X    | 00922008.8         | 4/7/2000          |               |            | Filed    |                |                |
| Hong Kong                  | C    | 02108292.6         | 11/15/2002        |               |            | Filed    |                |                |
| Japan                      | P    | 2001-574386        | 4/7/2000          |               |            | Filed    |                |                |
| Korea South                | P    | 2001-7016746       | 4/7/2000          |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US00/0956      | 4/7/2000          |               |            | Inactive | National Phase | 10/4/2001      |
| Thailand                   |      | 056794             | 4/10/2000         |               |            | Filed    |                |                |
| United States              |      | 09/288589          | 4/8/1999          |               |            | Filed    |                |                |

## PATENT LISTING

Case Number: 448300030

Title: POLYMERIZATION CATALYSTS FOR POLYESTERS

Inventors: AHARONI SHAUL M  
GORANOV KONSTANTIN M

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus       | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|-----------------|-------------------|
| Belgium                    | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| European Patent Convention | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Inactive | National Phase  | 8/11/2004         |
| France                     | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Germany                    | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Great Britain              | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Italy                      | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Netherlands                | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Patent Cooperation Treaty  | P    | PCT/US99/0463         | 3/3/1999             |                  |               | Inactive | National Phase  | 9/20/2000         |
| Portugal                   | X    | 99909773.6            | 3/3/1999             | EP1060207        | 8/11/2004     | Granted  | Expires         | 3/3/2019          |
| Taiwan                     |      | 88103466              | 3/30/1999            | NI-193035        | 4/15/2004     | Granted  | Expires         | 3/29/2019         |
| United States              | L    | 60/077083             | 3/6/1998             |                  |               | Inactive | Filled Complete | 3/6/1999          |
| United States              |      | 09/261024             | 3/1/1999             | 6034202          | 3/7/2000      | Granted  | Expires         | 3/1/2019          |

Case Number: 45130030

Title: PROCESS FOR MAKING LOAD LIMITING YARN

Inventors: TANG WEIMING  
MARES FRANK

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Austria                    | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Belgium                    | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Brazil                     | P    | PI9910651-5           | 5/21/1999            |                  |               | Filed    |                |                   |
| Canada                     | P    | 2333013               | 5/21/1999            |                  |               | Filed    |                |                   |
| Denmark                    | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| European Patent Convention | X    | 99927088.7            | 5/21/1999            | EP1080258        |               | Inactive | National Phase | 2/11/2004         |
| Finland                    | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| France                     | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Germany                    | X    | 99927088.7            | 5/21/1999            | P699147433       | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Great Britain              | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Greece                     | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Ireland                    | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Italy                      | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Japan                      | P    | 200-551065            | 5/21/1999            |                  |               | Filed    |                |                   |
| Korea South                | P    | 2000-7013122          | 5/21/1999            |                  |               | Filed    |                |                   |
| Luxembourg                 | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Mexico                     | P    | 2000-011399           | 5/21/1999            |                  |               | Filed    |                |                   |
| Monaco                     | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Netherlands                | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Patent Cooperation Treaty  | P    | PCT/US99/1128         | 5/21/1999            |                  |               | Inactive | National Phase | 11/15/2000        |
| Portugal                   | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Spain                      | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Sweden                     | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| Switzerland                | X    | 99927088.7            | 5/21/1999            | EP1080258        | 2/11/2004     | Granted  | Expires        | 5/21/2019         |
| United States              | 01   | 09/083493             | 5/22/1998            |                  |               | Inactive | Abandoned      | 5/15/2000         |
| United States              | 01   | 09/352110             | 7/14/1999            |                  |               | Inactive | Abandoned      | 2/1/2001          |
| United States              | 01   | 09/083493             | 5/15/2000            | 6228488          | 5/8/2001      | Granted  | Expires        | 5/22/2018         |

PATENT LISTING

Case Number: 45130030

|               |    |           |            |         |           |        |         |         |           |      |
|---------------|----|-----------|------------|---------|-----------|--------|---------|---------|-----------|------|
| United States | 01 | 09/714640 | 11/16/2000 | 6340524 | 1/22/2002 | BROWNM | Granted | Expires | 1/22/2017 | 4700 |
| United States | 02 | 09/741364 | 12/19/2000 | 6613257 | 9/2/2003  | BROWNM | Granted | Expires | 1/22/2017 | 4700 |

PATENT LISTING

Case Number: 45320030

Title: LOAD LIMITING WEBBING  
Inventors: TANG WEIMING  
MARES FRANK  
RAHMAN ZAFARUR X  
NAGY MONTE L JR.

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | Date       |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|------------|
| Brazil                     | P    | PI9911317-1           | 6/15/1999            |                  |               | Filed    |                |            |
| Canada                     | P    | 2330216               | 6/15/1999            |                  |               | Filed    |                |            |
| European Patent Convention | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Inactive | National Phase |            |
| Germany                    | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Great Britain              | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Italy                      | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Japan                      | P    | 2000-554592           | 6/15/1999            |                  |               | Filed    |                |            |
| Korea South                | P    | 2000-7014355          | 6/15/1999            |                  |               | Filed    |                |            |
| Netherlands                | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Patent Cooperation Treaty  | P    | PCT/US99/1336         | 6/15/1999            |                  |               | Inactive | National Phase | 12/15/2000 |
| Portugal                   | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Spain                      | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| Sweden                     | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019  |
| United States              |      | 09/098294             | 6/15/1998            | 6071835          | 6/6/2000      | Granted  | Expires        | 12/22/2017 |
| United States              | 1    | 09/587347             | 6/5/2000             |                  |               | Filed    |                |            |

## PATENT LISTING

Case Number: 46690030

**Title:** A SIZELESS YARN, A METHOD OF MAKING IT AND A METHOD OF USING IT

**Inventors:** MEDIEROS ROBERT W  
 CORRIGAN EUGENE J  
 TAM THOMAS YIU-TAI  
 SALEM ELSAID H  
 CHEN JIUNN-Y  
 REYNOLDS MICHAEL J  
 YASNOWSKY JOHN K

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| Belgium                    | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| European Patent Convention | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Inactive | National Phase | 10/27/2004     |
| France                     | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Germany                    | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Great Britain              | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Italy                      | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Japan                      | P    | 2000-610264        | 3/16/2000         |               |            | Filed    |                |                |
| Korea South                | P    | 2001-7011899       | 3/16/2000         |               |            | Filed    |                |                |
| Netherlands                | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Patent Cooperation Treaty  | P    | PCT/US00/0723      | 3/16/2000         |               |            | Inactive | National Phase | 9/17/2001      |
| Portugal                   | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| Spain                      | X    | 00916517.6         | 3/16/2000         | EP1264022     | 10/27/2004 | Granted  | Expires        | 3/16/2020      |
| United States              |      | 09/271941          | 3/18/1999         | 6099963       | 8/8/2000   | Granted  | Expires        | 3/18/2019      |
| United States              | 01   | 09/590897          | 6/9/2000          | 6413452       | 7/2/2002   | Granted  | Expires        | 3/18/2019      |
| United States              | 02   | 10/126229          | 4/18/2002         | 6796337       | 9/28/2004  | Granted  | Expires        | 3/18/2019      |

**Title:** POLYMERIC ADDITIVES AND POLYMERIC ARTICLE CONTAINING SAID ADDITIVE

**Inventors:** PATEL KUNDAN M  
MARES FRANK  
TWOMEY CONOR J  
NELSON CHARLES J  
MOHAJER YOUSEF

| Country                                | Type | Application<br>Number     | Application<br>Filed     | Patent<br>Number | Grant<br>Date | Status            | SubStatus      | SubStatus<br>Date |
|----------------------------------------|------|---------------------------|--------------------------|------------------|---------------|-------------------|----------------|-------------------|
| European Patent Convention<br>Malaysia | X    | 01993177.3<br>PI20015445  | 11/28/2001<br>11/28/2001 |                  |               | Filed<br>Filed    |                |                   |
| Patent Cooperation Treaty<br>Taiwan    | P    | PCT/US01/4455<br>90129422 | 11/28/2001<br>11/28/2001 |                  |               | Inactive<br>Filed | National Phase | 6/9/2003          |
| United States                          | L    | 60/253384                 | 11/28/2000               |                  |               | Inactive          | Filed Complete | 2/7/2001          |
| United States                          |      | 09/778333                 | 2/7/2001                 | 6777496          | 8/17/2004     | Granted           | Expires        | 2/7/2021          |
| United States                          | 01   | 10/834415                 | 4/28/2004                |                  |               | Filed             |                |                   |

PATENT LISTING

Case Number: 47910030

Title: AN IMPROVED SPIN FINISH

Inventors: KLEIN RALF

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| Australia                  | P    | 42090/00           | 4/7/2000          | 765555        | 1/8/2004   | Granted  | Expires        | 4/7/2020       |
| China P.R.                 | P    | 00808187.5         | 4/7/2000          |               |            | Filed    |                |                |
| European Patent Convention | X    | 00921823.1         | 4/7/2000          |               |            | Filed    |                |                |
| Hong Kong                  | C    | 03101571.2         | 4/7/2000          |               |            | Filed    |                |                |
| Japan                      | P    | 2000-609643        | 4/7/2000          |               |            | Filed    |                |                |
| Korea South                | P    | 2001-7012807       | 4/7/2000          |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US00/0923      | 4/7/2000          |               |            | Inactive | National Phase | 10/3/2001      |
| Thailand                   |      | 056747             | 4/7/2000          |               |            | Filed    |                |                |
| United States              |      | 09/287834          | 4/7/1999          | 6365065       | 4/2/2002   | Granted  | Expires        | 4/7/2019       |
| United States              | 01   | 10/145945          | 10/26/2001        | 6770231       | 8/3/2004   | Granted  | Expires        | 6/30/2020      |

## PATENT LISTING

Case Number: 47920030

Title: SPIN FINISH  
 Inventors: KLEIN RALF

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| Australia                  | P    | 63626/00           | 7/20/2000         | 765393        | 1/15/2004  | Granted  | Expires        | 7/20/2020      |
| Canada                     | P    | 2380484            | 7/20/2000         |               |            | Filed    |                |                |
| China P.R.                 | P    | 00813545.2         | 7/20/2000         |               |            | Filed    |                |                |
| European Patent Convention | X    | 00950531.4         | 7/20/2000         |               |            | Filed    |                |                |
| Hong Kong                  | C    | 03102457.9         | 7/20/2000         |               |            | Filed    |                |                |
| Japan                      | P    | 2001-513678        | 7/20/2000         |               |            | Filed    |                |                |
| Korea South                | P    | 2002-7001316       | 7/20/2000         |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US00/1992      | 7/20/2000         |               |            | Inactive | National Phase | 1/28/2002      |
| Philippines                |      | 1-2000-02011       | 7/27/2000         |               |            | Filed    |                |                |
| Taiwan                     |      | 89115228           | 10/11/2000        |               |            | Filed    |                |                |
| Thailand                   |      | 059279             | 7/28/2000         |               |            | Filed    |                |                |
| United States              | L    | 60/146487          | 7/30/1999         |               |            | Inactive | Abandoned      | 10/15/1999     |
| United States              |      | 09/418857          | 10/15/1999        | 6426142       | 7/30/2002  | Granted  | Expires        | 10/15/2019     |
| United States              | 01   | 10/163976          | 6/6/2002          | 6712986       | 3/30/2004  | Granted  | Expires        | 7/30/2019      |
| United States              | 02   | 10/740192          | 12/18/2003        |               |            | Filed    |                |                |
| United States              | 03   | 10/933721          | 9/3/2004          |               |            | Filed    |                |                |

Case Number: 48420030

**Title:** HYBRID CABLED CORD AND A METHOD TO MAKE IT

**Inventors:**

FRITSCH JEAN F  
RUGRAFF PAUL  
WRIGHTSON IAN J  
RIM PETER B  
FUNDERBURK JEFFREY A

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| Australia                  | P    | 71290/00           | 9/8/2000          | 773621        | 9/23/2004  | Granted  | Expires        | 9/8/2020       |
| Brazil                     | P    | P10013910-6        | 9/8/2000          |               |            | Filed    |                |                |
| European Patent Convention | X    | 00960072.7         | 9/8/2000          |               |            | Filed    |                |                |
| Mexico                     | P    | 2002/002531        | 9/8/2000          |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US00/2477      | 9/8/2000          |               |            | Inactive | National Phase | 3/8/2002       |
| United States              | L    | 60/153002          | 9/8/1999          |               |            | Inactive | Filed Complete | 8/31/2000      |
| United States              |      | 09/650037          | 8/29/2000         |               |            | Inactive | Abandoned      | 8/5/2002       |
| United States              | 1    | 09/653571          | 8/31/2000         | 6601378       | 8/5/2003   | Granted  | Expires        | 8/31/2020      |
| United States              | 1    | 10/398867          | 3/25/2003         |               |            | Filed    |                |                |

PATENT LISTING

Case Number: 50800030

Title: ADHESION PROMOTERS WITH EPOXY-REACTIVE GROUPS

Inventors: HUYNH-TRAN T C  
NGUYEN H X

| Country                   | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| Malaysia                  | P    | P120024402            | 11/26/2002           |                  |               | Filed   |           |                   |
| Patent Cooperation Treaty |      | PCT/US02/3544         | 11/5/2002            |                  |               | Filed   |           |                   |
| Taiwan                    |      | 091133612             | 11/18/2002           |                  |               | Filed   |           |                   |
| United States             |      | 10/053275             | 1/17/2002            | 6780922          | 8/24/2004     | Granted | Expires   | 1/17/2022         |
| United States             | 01   | 10/887156             | 7/8/2004             |                  |               | Filed   |           |                   |

Case Number: 8602-016

**Title:** REDUCTION OF ACIDITY OF POLYESTERS BY MELT REACTION  
ENDCAPPING WITH ENEAMINES OR SCHIFF BASES

**Inventors:** HERGENROTHER WILLIAM L  
DOSHAH JOHN M

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Canada                     |      | 2023759               | 8/22/1990            | 2023759          | 10/17/1995    | Granted  |                | 8/22/2010         |
| European Patent Convention | E    | 90114855.1            | 8/2/1990             | EP0414008        |               | Inactive | Expires        | 11/2/1995         |
| France                     | E    | 90114855.1            | 8/2/1990             | EP0414008        | 11/2/1995     | Granted  | National Phase | 8/2/2010          |
| Germany                    | E    | EP0414008             | 8/2/1990             | P69023297        | 11/2/1995     | Granted  | Expires        | 8/2/2010          |
| Great Britain              | E    | 90114855.1            | 8/2/1990             | EP0414008        | 11/2/1995     | Granted  | Expires        | 8/2/2010          |
| Italy                      | E    | 90114855.1            | 8/2/1990             | EP0414008        | 11/2/1995     | Granted  | Expires        | 8/2/2010          |
| Japan                      |      | 217198/90             | 8/20/1990            | 2858475          | 12/4/1998     | Granted  | Expires        | 8/20/2010         |
| Spain                      |      | EP0414008             | 8/2/1990             | 2081879/3        | 11/2/1995     | Granted  | Expires        | 8/2/2010          |
| United States              | E    | 397222                | 8/23/1989            | 4988777          | 1/29/1991     | Granted  | Expires        | 8/23/2009         |

## PATENT LISTING

Case Number: 8602-017

**Title:** REDUCTION OF ACIDITY OF POLYESTERS BY MELT REACTION  
ENDCAPPING WITH DIALKYOXYLATE OR TETRAALKYL UREA

**Inventors:** HERGENROTHER WILLIAM L  
DOSHAK JOHN M

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Canada                     |      | 2023758               | 8/22/1990            | 2023758          | 4/29/1997     | Inactive | Lapsed         | 6/16/2004         |
| European Patent Convention | E    | 90114856.9            | 8/2/1990             | EP0414009        |               | Inactive | National Phase | 5/8/1996          |
| France                     | E    | 90114856.9            | 8/2/1990             | EP0414009        | 5/29/1996     | Inactive | Lapsed         | 6/16/2004         |
| Germany                    | E    | EP0414009             | 8/2/1990             | P69027160.3      | 5/29/1996     | Inactive | Lapsed         | 6/16/2004         |
| Great Britain              | E    | 90114856.9            | 8/2/1990             | EP0414009        | 5/29/1996     | Inactive | Lapsed         | 6/16/2004         |
| Italy                      | E    | 90114856.9            | 8/2/1990             | EP0414009        | 5/29/1996     | Inactive | Lapsed         | 6/16/2004         |
| Japan                      |      | 217197/90             | 8/20/1990            | 2858474          | 12/4/1998     | Inactive | Lapsed         | 6/16/2004         |
| Spain                      |      | EP0414009             | 8/2/1990             | 2087101/5        | 5/29/1996     | Inactive | Lapsed         | 6/16/2004         |
| United States              | E    | 397221                | 8/23/1989            | 4983691          | 1/8/1991      | Granted  | Expires        | 8/23/2009         |

PATENT LISTING

Case Number: 9009-069

**Title:** PROCESS FOR PRODUCING ANTI-WICK POLYESTER YARN  
**Inventors:** CHAKRAVARTI KALIDAS  
KHALATBARI JAMSHID

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status              | SubStatus            | SubStatus<br>Date       |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------------------|----------------------|-------------------------|
| Japan         |      | 350714/91             | 12/12/1991           |                  |               |                     |                      |                         |
| United States |      | 628764                | 12/17/1990           | 5116682          | 5/26/1992     | Inactive<br>Granted | Abandoned<br>Expires | 8/19/1998<br>12/17/2010 |

PATENT LISTING

Case Number: 9109-071

Title: SPIN FINISH COMPOSITION

Inventors: CHAKRAVARTI KALIDAS

"" (if Present) = Case Has Licensee

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| United States |      | 883737                | 5/15/1992            | 5232742          | 8/3/1993      | Granted | Expires   | 5/15/2012         |

PATENT LISTING

Case Number: 9505-028

Title: SURFACE MODIFIED POLYESTER YARN  
Inventors: CHAKRAVARTI KALIDAS

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|--------|-----------|-------------------|
| United States |      | 08/494912             | 6/26/1995            |                  |               | Filed  |           |                   |

PATENT LISTING

Case Number: H0001099

Title: HIGH DPF (DENIER PER FILAMENT) YARNS WITH IMPROVED FATIGUE

Inventors: RIM PETER B  
KIANI FARANGIS

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| China P.R.                 | P    | 02821550.8            | 1/29/2002            |                  |               | Filed    |                |                   |
| Czech Republic             | P    | PV 2004-615           | 1/29/2002            |                  |               | Filed    |                |                   |
| European Patent Convention | X    | 02713509.4            | 1/29/2002            |                  |               | Filed    |                |                   |
| India                      | P    | W-00200401846         | 1/29/2002            |                  |               | Filed    |                |                   |
| Indonesia                  | P    | W-00200401846         | 1/29/2002            |                  |               | Filed    |                |                   |
| Japan                      | P    | 2003-564326           | 1/29/2002            |                  |               | Filed    |                |                   |
| Korea South                | P    | 2004-7005550          | 1/29/2002            |                  |               | Filed    |                |                   |
| Malaysia                   | P    | P120030285            | 1/28/2003            |                  |               | Filed    |                |                   |
| Mexico                     | P    | PA/a/2004/0070        | 1/29/2002            |                  |               | Filed    |                |                   |
| Patent Cooperation Treaty  | P    | PCT/US02/02751        | 1/29/2002            |                  |               | Inactive | National Phase | 2/17/2004         |
| Poland                     | P    | P369403               | 1/29/2002            |                  |               | Filed    |                |                   |
| Russian Federation         | P    | 2004106557            | 1/29/2002            |                  |               | Filed    |                |                   |
| Taiwan                     |      | 092101822             | 1/28/2003            |                  |               | Filed    |                |                   |
| United States              | L    | 60/352411             | 1/28/2002            |                  |               | Filed    |                |                   |
| United States              |      | 10/307630             | 12/2/2002            | 6696151          | 2/24/2004     | Granted  | Expires        | 12/2/2022         |
| United States              | 01   | 10/726762             | 12/2/2003            |                  |               | Filed    |                |                   |
| United States              | 02   | 10/996203             | 11/22/2004           |                  |               | Filed    |                |                   |

Case Number: H0001104

Title: HIGH-STRENGTH THIN SHEATH FIBERS

## Inventors:

ZHOU QIAN  
LANIEVE HERMAN  
PERKINS JEFFREY  
TWOMEY CONOR

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| China P.R.                 | P    | 01823401.1            | 7/3/2001             |                  |               | Filed    |                |                   |
| European Patent Convention | X    | 01952966.8            | 7/3/2001             |                  |               | Filed    |                |                   |
| Indonesia                  | P    | W-00200400205         | 7/3/2001             |                  |               | Filed    |                |                   |
| Japan                      | P    | 2003-510489           | 7/3/2001             |                  |               | Filed    |                |                   |
| Korea South                | P    | 2003-7017316          | 7/3/2001             |                  |               | Filed    |                |                   |
| Malaysia                   |      | P120021776            | 5/16/2002            |                  |               | Filed    |                |                   |
| Patent Cooperation Treaty  | P    | PCT/US01/4124         | 7/3/2001             |                  |               | Inactive | National Phase | 10/27/2003        |
| Taiwan                     |      | 091110725             | 5/22/2002            |                  |               | Filed    |                |                   |
| United States              | L    | 60/303102             | 7/3/2001             |                  |               | Inactive | Abandoned      | 7/1/2002          |
| United States              |      | 10/186831             | 7/1/2002             |                  |               | Filed    |                |                   |

## PATENT LISTING

Case Number: H0001479

Title: - HIGH-STRENGTH CHEMICALLY RESISTANT THIN SHEATH FIBERS AND METHODS OF MANUFACTURE

## Inventors:

ZHOU QIANG  
 LOBOVSKY ALEX  
 MATRUNICH JAMES  
 TWOMEY CONOR  
 MCGRATH BARBARA

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus              | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|------------------------|----------------|
| China P.R.                 | P    | 01823431.3         | 7/3/2001          |               |            | Filed    |                        |                |
| European Patent Convention | X    | 01951102.1         | 7/3/2001          |               |            | Filed    |                        |                |
| Indonesia                  | P    | W-00200400204      | 7/3/2001          |               |            | Filed    |                        |                |
| Indonesia                  | P 01 | W-00200400204      | 7/14/2004         |               |            | Filed    |                        |                |
| Japan                      | P    | PCT/US01/4124      | 7/3/2001          |               |            | Filed    |                        |                |
| Korea South                | P    | 2003-7017317       | 7/3/2001          |               |            | Filed    |                        |                |
| Malaysia                   |      | PI20021840         | 5/20/2002         |               |            | Filed    |                        |                |
| Patent Cooperation Treaty  | P    | PCT/US01/4124      | 7/3/2001          |               |            | Inactive | National Phase Expires | 10/27/2003     |
| Taiwan                     |      | 091110735          | 5/28/2002         | NI201266      | 8/31/2004  | Granted  | Expires                | 5/27/2022      |
| United States              | L    | 60/303103          | 7/3/2001          |               |            | Inactive | Filed Complete Expires | 7/1/2002       |
| United States              |      | 10/186855          | 7/1/2002          | 6703122       | 3/9/2004   | Granted  | Expires                | 7/1/2022       |
| United States              | 01   | 10/726765          | 12/2/2003         |               |            | Filed    |                        |                |

Case Number: H0002552

Title: POLYESTER RESIN AND INDUSTRIAL YARN PROCESS

Inventors:

SHA HONG-JIAN J  
YOUNG JOHN A  
NEAL JAMES G  
ABDALLA SAMIR Z  
TAM THOMAS Y  
ZHIXUAN HU

| Country       | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status  | SubStatus | SubStatus<br>Date |
|---------------|------|-----------------------|----------------------|------------------|---------------|---------|-----------|-------------------|
| United States |      | 09/991179             | 11/16/2001           | 6649263          | 11/18/2003    | Granted | Expires   | 11/16/2021        |

PATENT LISTING

Case Number: H0003672

Title: BONDING OF POLYESTER FIBERS WITH ENGINEERED SURFACE TO RUBBER

Inventors:

MEHTA VINAY R  
RIM PETER B  
NGUYEN HUY X  
NELSON CHARLES J  
HUYNH-TRAN CHI T

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| China P.R.                 | P    | 03806178.3         | 1/14/2003         |               |            | Filed    |                |                |
| Czech Republic             | P    | 2004-815           | 1/14/2003         |               |            | Filed    |                |                |
| European Patent Convention | X    | 03731933.2         | 1/14/2003         |               |            | Filed    |                |                |
| India                      | P    | 984/KOLNP/200      | 1/14/2003         |               |            | Filed    |                |                |
| Indonesia                  | P    | W00200401749       | 1/14/2003         |               |            | Filed    |                |                |
| Japan                      | P    | 2003-562182        | 1/14/2003         |               |            | Filed    |                |                |
| Korea South                | P    | 2004-7011096       | 1/14/2003         |               |            | Filed    |                |                |
| Malaysia                   | P    | PI20030153         | 1/17/2003         |               |            | Filed    |                |                |
| Mexico                     | P    | PA/a/2004/0069     | 1/14/2003         |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US03/0126      | 1/14/2003         |               |            | Inactive | National Phase | 7/9/2004       |
| Poland                     | P    | P-370422           | 1/14/2003         |               |            | Filed    |                |                |
| Russian Federation         | P    | 2004122113         | 1/14/2003         |               |            | Filed    |                |                |
| Taiwan                     |      | 082100994          | 1/17/2003         |               |            | Filed    |                |                |
| United States              | L    | 60/349996          | 1/17/2002         |               |            | Inactive | Filed Complete | 1/14/2003      |
| United States              |      | 10/342533          | 1/14/2003         |               |            | Filed    |                |                |

PATENT LISTING

Case Number: H0004346

Title: POLYMER-BASED REINFORCEMENT MATERIAL AND TIRE CORD COMPOSITIONS AND METHODS OF PRODUCTION THEREOF

Inventors: RIM PETER B

| Country                   | Type | Application Number | Application Filed | Patent Number | Grant Date | Status | SubStatus | SubStatus Date |
|---------------------------|------|--------------------|-------------------|---------------|------------|--------|-----------|----------------|
| Malaysia                  | P    | P120040765         | 3/5/2004          |               |            | Filed  |           |                |
| Patent Cooperation Treaty |      | PCT/US2004/00      | 3/4/2004          |               |            | Filed  |           |                |
| Taiwan                    |      | 093105890          | 3/5/2004          |               |            | Filed  |           |                |
| United States             |      | 10/384046          | 3/7/2003          |               |            | Filed  |           |                |

PATENT LISTING  
Case Number: H0005195

Title: IMPROVED DIMENSIONALLY STABLE YARNS

Inventors: RIM PETER B  
X X -X  
WOODLEE RICHARD H  
KOPPLIN MICHAEL F.G.  
ZHOU QIANG -

| Country                   | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status | SubStatus | SubStatus<br>Date |
|---------------------------|------|-----------------------|----------------------|------------------|---------------|--------|-----------|-------------------|
| Patent Cooperation Treaty | P    | PCT/US04/1930         | 6/17/2004            |                  |               | Filed  |           |                   |
| Taiwan                    |      | 093120067             | 7/2/2004             |                  |               | Filed  |           |                   |
| United States             |      | 10/680586             | 10/6/2003            |                  |               | Filed  |           |                   |

PATENT LISTING

Case Number: H0005666

|               |                                                      |                       |                      |                  |               |        |                   |
|---------------|------------------------------------------------------|-----------------------|----------------------|------------------|---------------|--------|-------------------|
| Title:        | IMPROVED LOAD LEVELING YARNS AND WEBBINGS            |                       |                      |                  |               |        |                   |
| Inventors:    | GIOVANNETTI TONY L<br>HURST DAVID A<br>TRASK CRAIG A |                       |                      |                  |               |        |                   |
| Country       | Type                                                 | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status | SubStatus<br>Date |
| United States |                                                      | 10/754397             | 1/9/2004             |                  |               | Filed  |                   |

## PATENT LISTING

Case Number: H26677

Title: HIGH SPEED YARN FINISH APPLICATION

Inventors: TAM THOMAS Y-T  
 PERKINS JEFFREY T  
 ZHOU QIANG  
 FYNAARDT ARLIN L

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus      | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|----------------|----------------|
| China P.R.                 | P    | 01819105.3         | 9/18/2001         |               |            | Filed    |                |                |
| European Patent Convention | X    | 01973097.7         | 9/18/2001         |               |            | Filed    |                |                |
| India                      | P    | 00484/DELNP/2      | 9/18/2001         |               |            | Filed    |                |                |
| Japan                      | P    | 2002-529575        | 9/18/2001         |               |            | Filed    |                |                |
| Korea South                | P    | 2003-7004021       | 9/18/2001         |               |            | Filed    |                |                |
| Patent Cooperation Treaty  | P    | PCT/US01/2904      | 9/18/2001         |               |            | Inactive | National Phase | 3/18/2003      |
| Taiwan                     |      | 90123008           | 9/19/2001         | NI175229      | 7/29/2003  | Granted  | Expires        | 9/18/2021      |
| United States              | L    | 60/233681          | 9/19/2000         |               |            | Inactive |                |                |
| United States              |      | 09/941281          | 8/29/2001         | 6669993       | 12/30/2003 | Granted  | Expires        | 8/28/2021      |
| United States              | 01   | 10/691305          | 10/22/2003        | 6797065       | 9/28/2004  | Granted  | Expires        | 9/19/2020      |
| United States              | 02   | 10/887154          | 7/8/2004          |               |            | Filed    |                |                |

**Title:** A HIGH IV SOLID STATED PET/E-CAPROLACTONE DI-BLOCK CO-POLYMER AND METHOD OF SOLID STATING THE SAME

**Inventors:** SRIDHARAN SRINIVASAN  
YOUNG JOHN A  
ARTHUR DONALD J  
TAM THOMAS Y-T

| Country                    | Type | Application Number | Application Filed | Patent Number | Grant Date | Status   | SubStatus              | SubStatus Date |
|----------------------------|------|--------------------|-------------------|---------------|------------|----------|------------------------|----------------|
| Brazil                     | P    | PI0117146-1        | 11/13/2001        |               |            | Inactive | Abandoned              | 10/1/2004      |
| Canada                     | P    | 2459296            | 11/13/2001        |               |            | Filed    |                        |                |
| European Patent Convention | X    | 01270110.8         | 11/13/2001        |               |            | Filed    |                        |                |
| Japan                      | P    | 2003-543683        | 11/13/2001        |               |            | Filed    |                        |                |
| Korea South                | P    | 2004-7007139       | 11/13/2001        |               |            | Filed    |                        |                |
| Malaysia                   | P    | PI20021161         | 3/29/2002         |               |            | Filed    |                        |                |
| Mexico                     | P    | PA/A/2004/0042     | 11/13/2001        |               |            | Filed    |                        |                |
| Patent Cooperation Treaty  | P    | PCT/US01/4349      | 11/13/2001        |               |            | Inactive | National Phase         | 2/19/2004      |
| Taiwan                     | P    | 91104388           | 3/8/2002          |               |            | Filed    |                        |                |
| United States              | L    | 60/335153          | 11/14/2001        |               |            | Inactive |                        |                |
| United States              |      | 10/266517          | 10/8/2002         | 6794462       | 9/21/2004  | Granted  | Filed Complete Expires | 10/8/2022      |
| United States              | 1    | 10/863023          | 6/7/2004          |               |            | Filed    |                        |                |

PATENT LISTING

Case Number: H26724

Title: IMPROVED PROCESS FOR PRODUCING TIRE CORD  
Inventors: HUGH H ROWAN

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| China P.R.                 | P    | 02814585.2            | 5/20/2002            |                  |               | Filed    |                |                   |
| European Patent Convention | X    | 02734495.1            | 5/20/2002            |                  |               | Filed    |                |                   |
| India                      | P    | 01989/DELNP/2         | 5/20/2002            |                  |               | Filed    |                |                   |
| Japan                      | P    | 2002-591560           | 5/20/2002            |                  |               | Filed    |                |                   |
| Korea South                | P    | 2003-7015245          | 5/20/2002            |                  |               | Filed    |                |                   |
| Malaysia                   |      | P/20021852            | 5/21/2002            |                  |               | Filed    |                |                   |
| Patent Cooperation Treaty  | P    | PCT/US02/1610         | 5/20/2002            |                  |               | Inactive | National Phase | 11/20/2003        |
| Taiwan                     |      | 091110642             | 5/21/2002            |                  |               | Filed    |                |                   |
| Thailand                   |      | 073838                | 5/21/2002            |                  |               | Filed    |                |                   |
| United States              | L    | 60/292674             | 5/21/2001            |                  |               | Inactive |                |                   |
| United States              |      | 10/150799             | 5/17/2002            |                  |               | Filed    |                |                   |

PATENT LISTING

Case Number: H26755

**Title:** ESTERIFICATION CATALYST, POLYESTER PROCESS AND POLYESTER ARTICLE  
**Inventors:** DAVIES STEVEN C  
YOUNG JOHN A  
BELLAMY ANDREW  
LINDALL CHARLES  
MCINTOSH CALUM  
PARTRIDGE MARTIN

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Australia                  | P    | 2002216689            | 11/21/2001           |                  |               | Filed    |                |                   |
| Brazil                     | P    | PI0115879-1           | 11/21/2001           |                  |               | Filed    |                |                   |
| Canada                     | P    | 2429463               | 11/21/2001           |                  |               | Filed    |                |                   |
| China P.R.                 | P    | 01821050.3            | 11/21/2001           |                  |               | Filed    |                |                   |
| European Patent Convention | X    | 01997583.8            | 11/21/2001           |                  |               | Filed    |                |                   |
| India                      | P    | 783/CHENP/200         | 11/21/2001           |                  |               | Filed    |                |                   |
| Indonesia                  | P    | W-00200300986         | 11/21/2001           |                  |               | Filed    |                |                   |
| Japan                      | P    | 2002-545233           | 11/21/2001           |                  |               | Filed    |                |                   |
| Korea South                | P    | 2003-7006808          | 11/21/2001           |                  |               | Filed    |                |                   |
| Mexico                     | P    | PA/A/2003/0044        | 11/21/2001           |                  |               | Filed    |                |                   |
| Patent Cooperation Treaty  | P    | PCT/US01/4325         | 11/21/2001           |                  |               | Inactive | National Phase | 8/28/2003         |
| United States              | L    | 60/252350             | 11/21/2000           |                  |               | Inactive |                | 11/21/2001        |
| United States              | P    | 10/432510             | 11/21/2001           |                  |               | Filed    |                |                   |

PATENT LISTING

Case Number: 29640030

Title: HIGH MODULUS POLYESTER YARN FOR TIRE CORDS AND COMPOSITES

Inventors: RIM PETER B  
NELSON CHARLES J  
MOHAJER YOUSEF  
YOUNG JOHN A

| Country                      | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|------------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| * Australia                  | P 01 | 55810/96              | 12/22/1992           | 697934           | 2/4/1999      | Granted  | Expires        | 12/22/2012        |
| * Australia                  | P 01 | 33312/93              | 12/22/1992           |                  |               | Inactive | Abandoned      | 6/28/1996         |
| * Brazil                     | P 01 | PI9207038-8           | 12/22/1992           | PI9207038-8      | 7/11/2000     | Granted  | Expires        | 12/22/2012        |
| * Canada                     | P 01 | 2126328               | 12/22/1992           | 2126328          | 5/21/2002     | Granted  | Expires        | 12/22/2012        |
| * China P.R.                 | 01   | 93101268.6            | 1/21/1993            | ZL93101268.6     | 1/22/2000     | Granted  | Expires        | 1/21/2013         |
| * European Patent Convention | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Inactive | Opposition     | 9/4/1996          |
| * France                     | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Germany                    | X 01 | EP0623179             | 12/22/1992           | P69213474.3      | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Great Britain              | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Hong Kong                  | C    | 98106715.4            | 6/23/1998            | 1007579          | 4/16/1999     | Granted  | Expires        | 12/22/2012        |
| * India                      | 01   | 1261/DEL/92           | 12/29/1992           | 185928           | 12/21/2001    | Granted  | Expires        | 12/29/2012        |
| * Italy                      | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Japan                      | P 01 | 512461/93             | 12/22/1992           | 2629075          | 4/18/1997     | Granted  | Expires        | 12/22/2012        |
| * Korea South                | P 01 | 702476/94             | 12/22/1992           | 235758           | 9/28/1999     | Granted  | Expires        | 12/22/2012        |
| * Mexico                     | 01   | 93-0142               | 1/13/1993            | 183465           | 12/4/1996     | Granted  | Expires        | 1/13/2013         |
| * Netherlands                | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Patent Cooperation Treaty  | P 01 | PCT/US92/1106         | 12/22/1992           |                  |               | Inactive | National Phase | 6/9/1994          |
| * Spain                      | X 01 | EP0623179             | 12/22/1992           | 2091589-6        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Switzerland                | X 01 | 93901119.3            | 12/22/1992           | EP0623179        | 9/4/1996      | Granted  | Expires        | 12/22/2012        |
| * Taiwan                     | 01   | 82100327              | 1/19/1993            | NI66402          | 9/26/1994     | Granted  | Expires        | 1/18/2013         |
| * Thailand                   | 01   | 17851                 | 1/7/1993             |                  |               | Filed    |                |                   |
| * United States              | 01   | 814872                | 12/30/1991           |                  |               | Inactive | Abandoned      | 1/21/1992         |
| * United States              | 01   | 822799                | 12/1/1992            |                  |               | Inactive | Abandoned      | 9/13/1993         |

PATENT LISTING

Case Number: 29640030

|                |    |           |           |         |           |         |         |           |
|----------------|----|-----------|-----------|---------|-----------|---------|---------|-----------|
| *United States | 01 | 08/120708 | 9/13/1993 | 5397527 | 3/14/1995 | Granted | Expires | 3/14/2012 |
|----------------|----|-----------|-----------|---------|-----------|---------|---------|-----------|

PATENT LISTING

Case Number: 45320030

Title: LOAD LIMITING WEBBING

Inventors:

TANG WEIMING  
MARES FRANK  
RAHMAN ZAFARUR X  
NAGY MONTE L JR.

| Country                    | Type | Application<br>Number | Application<br>Filed | Patent<br>Number | Grant<br>Date | Status   | SubStatus      | SubStatus<br>Date |
|----------------------------|------|-----------------------|----------------------|------------------|---------------|----------|----------------|-------------------|
| Brazil                     | P    | P19911317-1           | 6/15/1999            |                  |               | Filed    |                |                   |
| Canada                     | P    | 2336216               | 6/15/1999            |                  |               | Filed    |                |                   |
| European Patent Convention | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Inactive | National Phase | 8/4/2004          |
| Germany                    | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Great Britain              | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Italy                      | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Japan                      | P    | 2000-554592           | 6/15/1999            |                  |               | Filed    |                |                   |
| Korea South                | P    | 2000-7014355          | 6/15/1999            |                  |               | Filed    |                |                   |
| Mexico                     | P    | 2000-012666           | 6/15/1999            |                  |               | Filed    |                |                   |
| Netherlands                | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Patent Cooperation Treaty  | P    | PCT/US99/1336         | 6/15/1999            |                  |               | Inactive | National Phase | 12/15/2000        |
| Portugal                   | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Spain                      | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| Sweden                     | X    | 99928628.9            | 6/15/1999            | EP1097066        | 8/4/2004      | Granted  | Expires        | 6/15/2019         |
| United States              |      | 09/098294             | 6/16/1998            | 6071835          | 6/6/2000      | Granted  | Expires        | 12/22/2017        |
| United States              | 1    | 09/567347             | 6/5/2000             |                  |               | Filed    |                |                   |