

**FEDERAL TRADE COMMISSION
16 CFR Part 303**

**Rules and Regulations
Under the Textile Fiber Products Identification Act**

AGENCY: Federal Trade Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Federal Trade Commission ("Commission") solicits comments on whether to amend Rule 7(c) of the Rules and Regulations Under the Textile Fiber Products Identification Act ("Textile Rules"), 16 CFR 303.7(c), to establish a new generic fiber subclass name and definition as an alternative to the generic name "polyester" for a specifically proposed subclass of polyester fibers manufactured by E. I. du Pont de Nemours and Company ("DuPont"), of Wilmington, Delaware. DuPont suggested the name "elasterell-p" for the fiber, which it described as an inherently elastic, bicomponent textile fiber consisting of two substantially different forms of polyester fibers, and referred to as "T400."

DATE: Comments will be accepted through April 19, 2002.

ADDRESS: Comments should be submitted to: Office of the Secretary, Federal Trade Commission, Room 159, 600 Pennsylvania Ave., N.W., Washington D.C., 20580. Comments should be identified as "16 CFR Part 303 -- Textile Rule 8 DuPont Comment – P948404."

FOR FURTHER INFORMATION CONTACT: Neil Blickman, Attorney, Division of Enforcement, Bureau of Consumer Protection, Federal Trade Commission, Washington, D.C., 20580; (202) 326-3038.

SUPPLEMENTARY INFORMATION:

I. Background

Rule 6 of the Textile Rules (16 CFR 303.6) requires manufacturers to use the generic names of the fibers contained in their textile products in making fiber content disclosures on labels, as required by the Textile Fiber Products Identification Act (“Textile Act”), 15 U.S.C. 70b(b)(1). Rule 7 of the Textile Rules (16 CFR 303.7) sets forth the generic names and definitions that the Commission has established for synthetic fibers. Rule 8 (16 CFR 303.8) describes the procedures for establishing new generic names.

DuPont applied to the Commission on February 5, 2001, for a new polyester fiber subclass name and definition, and supplemented its application with additional information and test data on March 18, 2001, and August 23, 2001.¹ DuPont stated that the T400 fiber is an inherently elastic, bicomponent, manufactured textile fiber consisting of two substantially different forms of polyester fibers. According to DuPont, T400 is distinguished from commercially available fibers by a significant and long-lived stretch and recovery characteristic fitting between conventional textured polyesters and spandex.

As a result of T400's fiber structure, DuPont maintained that T400 has the following distinctive properties: (1) stretch and recovery power that is far superior to that of any textured fiber, including

¹ DuPont's petition and supplements thereto are on the rulemaking record of this proceeding. This material, as well as any comments filed in this proceeding, will be available for public inspection in accordance with the Freedom of Information Act, 5 U.S.C. 552, and the Commission's Rules of Practice, 16 CFR 4.11, at the Consumer Response Center, Public Reference Section, Room 130, Federal Trade Commission, 600 Pennsylvania Avenue, N.W., Washington, D.C. Any comments that are filed will be found under the Rules and Regulations Under the Textile Fiber Products Identification Act, 16 CFR Part 303, Matter No. P948404, “DuPont Generic Fiber Petition Rulemaking.” The comments also may be viewed on the Commission's website at www.ftc.gov.

textured polyesters; (2) the superior stretch and recovery property does not degrade or “sag” over time with normal use and washings, compared to textured fibers, including polyesters; and (3) a softer “silky” feel or “hand” than textured polyester fibers. DuPont asserted that T400 will fill a growing and unmet consumer demand for stretch garments with fibers that can yield quality stretch and recovery without degrading over time like textured polyester fibers. DuPont contends that it would be confusing to consumers if T400 is called simply “polyester.”

DuPont, therefore, petitioned the Commission to establish the generic name “elasterell-p” as an alternative to, and a subclass of, “polyester.” In addition, DuPont proposed that the Commission add the following sentence to the current definition of polyester in Rule 7(c) to define T400 and similar fibers as a subclass of polyester:

Where the fiber is a multicomponent and exhibits inherent (not mechanically induced) recoverable stretch of at least 35% upon loading with 185 mg/dtex and unloading to 5.4 mg/dtex when tested in accordance with ASTM test D6720, the term “elasterell-p” may be used as a generic description of the fiber.

The effect of DuPont’s proposed amendment would be to allow use of the name “elasterell-p” as an alternative to the generic name “polyester” for the subcategory of polyester fibers meeting the further criteria contained in the sentence added by the proposed amendment.

After an initial analysis with the assistance of a textile expert, the Commission determined that DuPont’s proposed new fiber technically falls within Rule 7(c)’s definition of “polyester.”² The Commission further determined that DuPont’s application for a new subclass name and definition merits further consideration. Accordingly, on May 21, 2001, the Commission announced that it had issued

² Rule 7(c) defines “polyester” as “[a] manufactured fiber in which the fiber-forming substance is any long chain synthetic polymer composed of at least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, [formula omitted] and para substituted hydroxy-benzoate units, [formula omitted].” 16 CFR 303.7(c).

DuPont the designation "DP 0002" for temporary use in identifying T400 fiber pending a final determination on the merits of the application for a new generic fiber subclass name and definition. A final determination will be based on whether the record in this proceeding indicates that DuPont meets the Commission's criteria for issuing new fiber subclass names and definitions, as described in Part II, below.

II. Invitation to Comment

The Commission is soliciting comment on DuPont's application generally, and on whether the application meets the Commission's criteria for granting applications for new generic fiber subclass names.

The Commission articulated standards for establishing a new generic fiber "subclass" in the proceeding to allow use of the name "lyocell" as an alternative generic description for a specifically defined subcategory of "rayon" fiber, pursuant to 16 CFR 303.7(d). There, the Commission noted that:

where appropriate, in considering applications for new generic names for fibers that are of the same general chemical composition as those for which a generic name already has been established, rather than of a chemical composition that is radically different, but that have distinctive properties of importance to the general public as a result of a new method of manufacture or their substantially differentiated physical characteristics, such as their fiber structure, the Commission may allow such fiber to be designated in required information disclosures by either its generic name or, alternatively, by its "subclass" name. The Commission will consider this disposition when the distinctive feature or features of the subclass fiber make it suitable for uses for which other fibers under the established generic name would not be suited, or would be significantly less well suited.³

Thus, a new generic fiber subclass may be appropriate in cases where the proposed subclass fiber: (1) has the same general chemical composition as an established generic fiber category; (2) has distinctive properties of importance to the general public as a result of a new method of manufacture or

³ 60 FR 62352, 62353 (Dec. 6, 1995).

substantially differentiated physical characteristics, such as fiber structure; and (3) the distinctive feature(s) make the fiber suitable for uses for which other fibers under the established generic name would not be suited, or would be significantly less well suited.⁴

Within the established 24 generic names for manufactured fibers, there are three cases where such generic name alternatives may be used: (1) pursuant to Rule 7(d), 16 CFR 303.7(d), within the generic category “rayon,” the term “lyocell” may be used as an alternative generic description for a specifically defined subcategory of rayon fiber; (2) pursuant to Rule 7(e), 16 CFR 303.7(e), within the generic category “acetate,” the term “triacetate” may be used as an alternative generic description for a specifically defined subcategory of acetate fiber; and (3) pursuant to Rule 7(j), 16 CFR 303.7(j), within the generic category “rubber,” the term “lastrile” may be used as an alternative generic description for a specifically defined subcategory of rubber fiber.

DuPont’s application may describe a subclass of generic polyester fibers with distinctive features resulting from physical characteristics of the fiber and its method of manufacture, which meets the above standard for allowing designation by the subclass name "elasterell-p." Alternatively, T400 may fit within the current definition of polyester in Rule 7(c), with or without need for clarification. This

⁴ The criteria for establishing a new generic *subcategory* are different from the criteria to establish a new generic category. The Commission’s criteria for granting applications for new generic names are as follows: (1) the fiber for which a generic name is requested must have a chemical composition radically different from other fibers, and that distinctive chemical composition must result in distinctive physical properties of significance to the general public; (2) the fiber must be in active commercial use or such use must be immediately foreseen; and (3) the granting of the generic name must be of importance to the consuming public at large, rather than to a small group of knowledgeable professionals such as purchasing officers for large Government agencies. The Commission believes it is in the public interest to prevent the proliferation of generic names, and will adhere to a stringent application of these criteria in consideration of any future applications for generic names, and in a systematic review of any generic names previously granted that no longer meet these criteria. The Commission announced these criteria on Dec. 11, 1973, at 38 FR 34112, and later clarified and reaffirmed them on Dec. 6, 1995, 60 FR 62353, on May 23, 1997, 62 FR 28343, on Jan. 6, 1998, 63 FR 447 and 63 FR 449, and on Nov. 17, 2000, 65 FR 69486.

notice, therefore, suggests three approaches to resolve the situation, and requests comment from the public on the relative merits of each:

1. Amend Rule 7(c) to broaden its definition for polyester to better describe the allegedly unique molecular structure and physical characteristics of T400 and any similar fibers (without creating a new subclass for T400);
2. Amend Rule 7(c)'s definition for polyester by creating a separate subclass name and definition for T400 and other similar qualifying fibers within the polyester category; or
3. Deny DuPont's application because T400 fiber fits within Rule 7(c)'s definition of polyester without need for any change.

In today's notice, the Commission is soliciting comments on all aspects of the appropriateness of DuPont's proposed amendment to Rule 7(c)'s definition of polyester. Although the Commission initially has determined that DuPont's new fiber technically falls within the existing Rule 7(c), 16 CFR 303.7(c), definition of "polyester," the Commission believes it is in the public interest to solicit comments on whether it should amend Rule 7(c) by creating a subclass to recognize T400's characteristics or otherwise. Before deciding whether to amend Rule 7, the Commission will consider any comments submitted to the Secretary of the Commission within the above-mentioned comment period.

III. DuPont's Petition

A. T400 Fiber's Chemical Composition

DuPont's petition and supplemental filings described in detail the T400 fiber. The following description is substantially verbatim:

Although each of the two components of T400 has the same chemical composition as polyester, new technology has made it possible for DuPont to combine in a bicomponent fiber structure, previously commercialized polyester with another new form of polyester that has not yet been commercialized in the United States. One of these individual components of the new fiber is different from current commercial forms of polyester by one methylene group. T400 also has a molecular structure that is radically

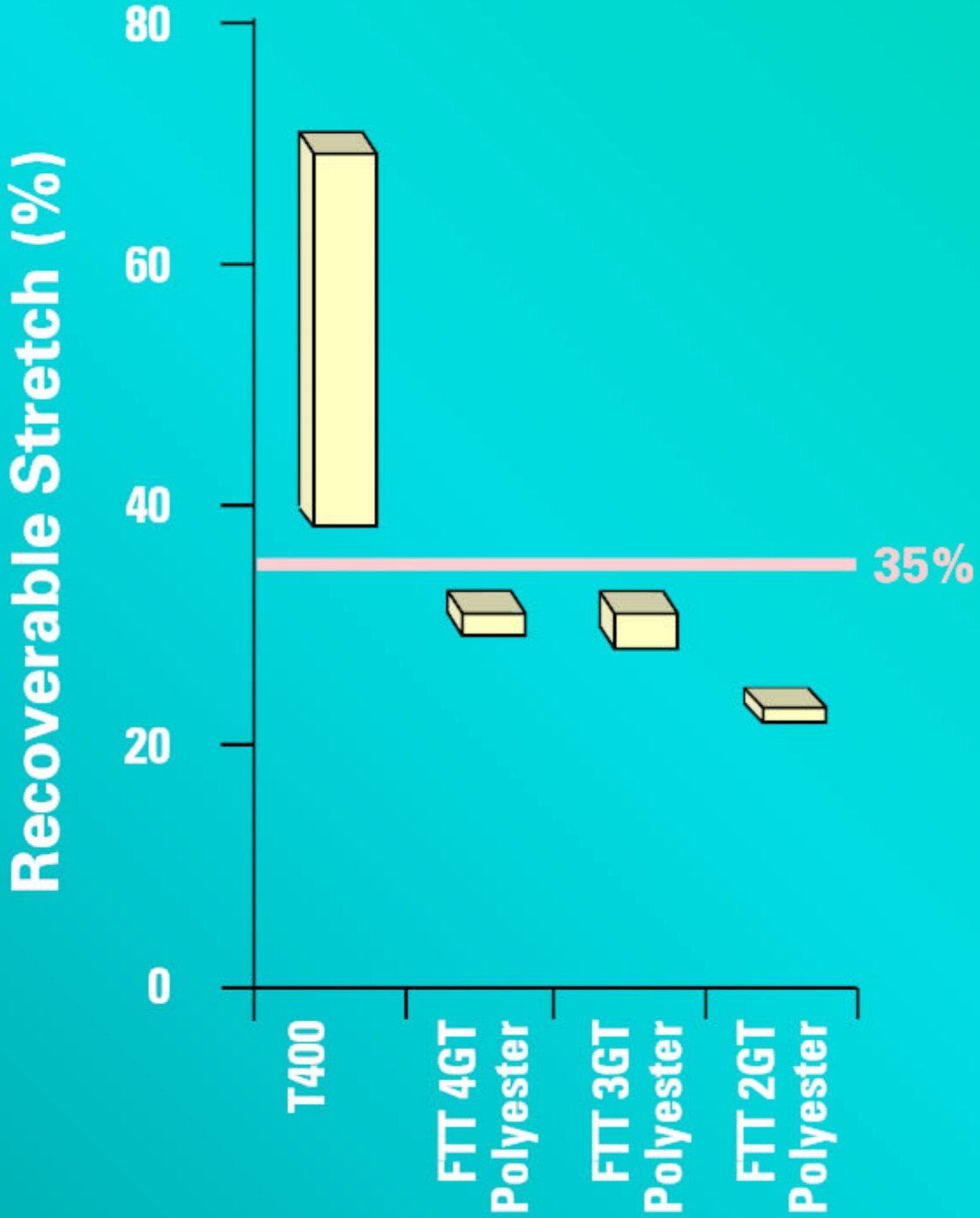
different from other polyesters in that it has a substantially different degree of polymerization and associated properties. In addition, T400's fiber structure is different from other polyesters. This differentiated physical characteristic is a helical crimp resulting from the differential shrinkage of two different fibers spun as a bicomponent, and results in a level of inherent stretch and recovery uncharacteristic of any other polyester. The stretch and recovery is not physically induced and temporary like texturizing, but is inherent in the helical fiber structure, and the stretch recovery power is sustained over time.

B. T400's Distinctive Properties as a Result of a New Method of Manufacture or Substantially Differentiated Physical Characteristics, Such as Fiber Structure

DuPont's petition detailed T400's distinctive physical properties. The following items are excerpted nearly verbatim from DuPont's petition and supplements.

1. According to DuPont, the most notable characteristic (and of greatest importance to consumers) of T400 is its stretch and recovery power which is far superior to that of any textured fiber, including textured polyesters. This property is a direct result of the fiber structure of T400. DuPont has compared the stretch and recovery of several false twist textured fibers to T400. The range of recoverable stretch values for T400, which is well above 35%, reflects the fact that DuPont can vary the stretch and recovery of the fiber by adjusting the spinner conditions. The recoverable stretch values for the polyester fibers described as 2GT, 3GT, and 4GT are below 35%.

Recoverable Stretch



DuPont maintains that the ability of a yarn to recover effectively after being stretched is the key to producing quality stretch fabric. Air jet covered (AJC) spandex yarn (40d spandex with 150d polyester) having 9% by weight spandex was used as a yarn to benchmark recoverable stretch performance to provide quality stretch and recovery. Recoverable stretch measurements on a variety of yarns, including the AJC benchmark yarn, indicated 35% recoverable stretch as a minimum value for producing quality stretch fabrics. AJC spandex is accepted in the trade as the minimum recovery force product for creating quality stretch fabrics. DuPont compared the recoverable stretch of textured 2GT, textured 4GT, T400 and AJC spandex (9% by weight spandex) fibers using ASTM D6720 and the stretch of fabrics woven from those yarns. Results are summarized in the table below.

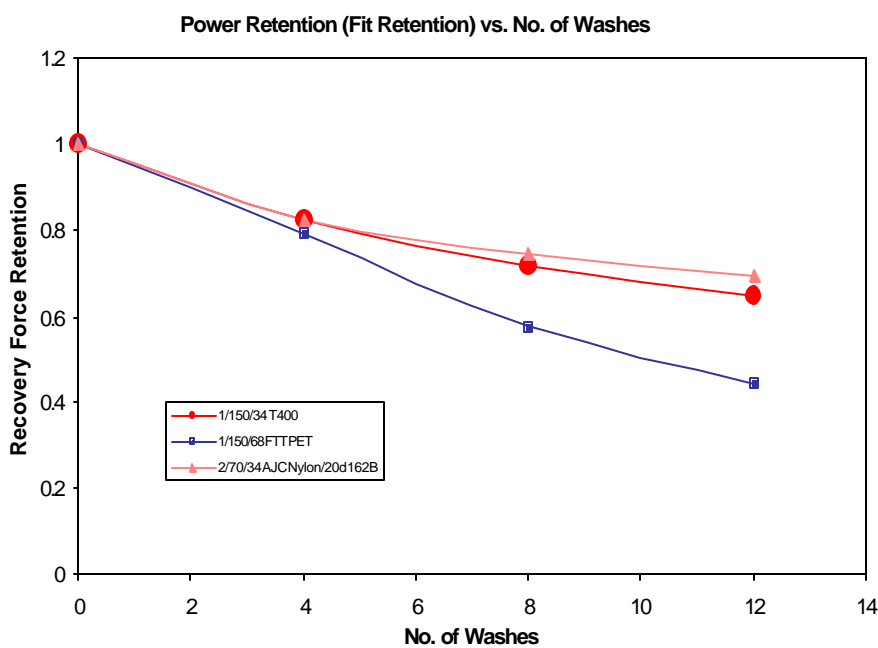
Yarn	2GT	4GT	T400	AJC Spandex (9%)
Recoverable Stretch (%)	21	28	37	38
Woven Fabric Stretch (%)	10	9	23	21

According to DuPont, the data support the conclusions that a yarn having 35% recoverable stretch produces a high quality stretch fabric, while a yarn having a recoverable stretch of 28% does not produce a high quality stretch fabric. DuPont further opined, based on the research it has conducted, that 20% minimum fabric elongation (stretch) is required to insure garment comfort.

2. DuPont further stated that an additional distinctive property of T400 is that its superior stretch and recovery does not degrade over time as compared to textured fibers, including polyesters. DuPont has conducted testing to demonstrate the degradation of stretch and recovery over time due to home laundering. In this test, fabric samples were washed in an automatic washer with 105 degree F (+/- 5

degrees) water, detergent, and one cup of chlorine bleach, and dried at 155 to 160 degrees F for the number of repetitions indicated.

Similar knit samples of a Lycra spandex and nylon blend (identified as 2/70/34 AJC Nylon/20d 162B), a 15% T400 and combed cotton blend (identified as 1/150/34 T400) and a 15% textured 2GT polyester and combed cotton blend (identified as 1/150/68 FTT PET) were washed repeatedly and tested for stretch and recovery. A chart illustrating the data follows.



According to DuPont, the data show that the stretch and recovery resulting from the inherent stretch from fiber structure, as represented by the spandex and T400 samples, degrade substantially less than does mechanically induced texturizing in rigid fibers after repeated laundering. When the effect of the lower initial power of the textured fabric is considered, the fabric with T400, after 12 washings, still has approximately 100% of the power of the textured fabric when new. With the same number of washes, the textured fabric has less than 45% of the power of the T400 fabric.

The chart above displays the residual recovery force of three types of knitted fabrics after a series of washings. The initial power, or recovery force, of the three knits measured before they were washed was used as the reference for the data in the chart. This zero wash cycle value was measured as the unload force at 140% elongation on the third cycle. The zero wash cycle values are as follows:

Sample	0 Wash Recovery Force (gm)
1/150/34 T400	73
1/150/68 FTT PET	46
2/70/34 AJC Nylon/20d 162B	96

3. The physical properties of T400, 4GT, 3GT, and 2GT polyester fibers are summarized in the table below. DuPont explained that the uniqueness of T400 is derived from the natural helical coil imparted by the differential shrinkage of the two polymer components. This polymer choice, combined with spinning technology, offers the differential shrinkage of the two components.

Fiber Properties	T400	4GT	3GT	2GT
Recoverable Stretch	37%-68%	28%	27%	21%
Stress/Strain	High Power, stretch			
Cross-Section	Bicomponent, non-homogeneous mix of two different polymers	Irregular, homogeneous polymer	Irregular, homogeneous polymer	Irregular, homogeneous polymer
Crimp	Consistent, regular, helical	Irregular	Irregular	Irregular
Torque	Torque-free	Twist-lively	Twist-lively	Twist-lively
Heat Set Temperature (F)	320-350	360-370	320	350-370

Dye Temperature (F)	212-265	212	212	255-265
Melting Point (F) measured by DSC	444 and 484	439	446	487
Glass Transition Temperature (F) measured by DSC	149		122	165
Tenacity (g/d)	3.8	2.7	2.6	4.3
Initial Modulus (g/d)	40	18.6	15	48
Extension @ Break (%)⁵	27	37	41	16.5
Specific Gravity	1.36	1.32	1.35	1.39
Yarn Crimp Extension (%)⁶	275	233	246	213
Yarn Set (%)⁷				
2% Elongation	1.3	1.8	1.5	1.5
5% Elongation	3.0	4.1	3.7	3.6
10% Elongation	6.2	6.3	6.3	7.1

⁵ Extension @ Break expresses extension after the “uncrimping” or “yarn crimp extension” section of the force extension curves, as on page 4 of DuPont’s first supplemental petition, has been removed.

⁶ Yarn crimp extension is a measure of the “uncrimping” section of the force extension curve and was measured as follows: a 5,000 denier skein was boiled off to fully develop yarn crimp. The yarn length with 2.5 gr force was recorded (L 2.5). The skein was cycled three times to 1030 gr (L 1030) approximating a load that fully extends the yarn to uncrimp it. The extension is measured as 100% x (L 1030 - L 2.5)/(L 2.5).

⁷ Measured in accordance with ASTM D1774.

4. Dupont maintains that T400's distinctive stretch and recovery properties are of importance to the general public. DuPont stated that it has conducted extensive consumer research to identify the characteristics that consumers want for their clothes and on the appeal of stretch fabrics.⁸ According to DuPont, globally, 74% of the population believe that stretch is not a fad, but is here to stay. DuPont contended that the appeal of stretch in garments is very high across age, sex and geographical boundaries. When men and women are asked to identify the value of the functional benefits of Lycra spandex in clothing, approximately 80% of men and women list the following: comfort, freedom of movement, wrinkle/crease resistance, shape retention, fit, easy care. DuPont contends that consumers equate stretch with comfort, and that this is a distinctive property of importance to consumers.

C. T400's Distinctive Feature(s) Allegedly Make the Fiber Suitable for Uses for Which Other Polyester Fibers Would Not Be Suited, or Would Be Significantly Less Well Suited

DuPont asserted that T400 is suitable for uses for which polyester fibers are not suited, or not as well suited. DuPont's petition stated:

T400 with inherent stretch will satisfy consumer demands for comfort, freedom of movement, shape retention and fit where textured fibers can not or can not as well. The difference will be noticeable to consumers with fabric stretch values 35-50% above [fabrics] made with textured yarns. T400 exhibits a much higher level of stretch than is possible with texturizing and, more significantly, it has recovery power that lasts. Inherent stretch built into the fiber structure does not degrade over time like the mechanical crimping of rigid polyester fibers. As a result, sweaters and sweatpants made with T400 will not sag like textured polyesters after normal use and numerous washings.

DuPont retained Arbor, Inc. of Media, Pennsylvania to conduct a qualitative, blind fabric focus group study with 18 consumers for the purpose of obtaining consumer reactions to fabrics constructed of textured 4GT, T400 and Lycra (spandex) blends with cotton. DuPont stated that, according to these

⁸ Some of this research is documented in the brochure "Lycra Brand Consumer Insights," attached as Exhibit 1 to DuPont's February 5, 2001 Petition.

consumers, the characteristics of the T400 blend fabrics seem to more closely resemble the characteristics of fabrics made with Lycra spandex fibers than fabrics made with a polyester or polyester/cotton blend. The fabrics made with T400 and Lycra spandex were viewed to have more stretch. There were varying views on whether the fabrics with T400 or the ones with Lycra spandex had the most stretch, but both were viewed as having stretch. The polyester fabrics were viewed to have little, if any, stretch. According to DuPont, this subjective evidence supports the conclusion that textured polyesters are not suitable or not as suitable for imparting the stretch to garments that consumers expect, and that T400 is a suitable stretch component.⁹

Finally, DuPont argued that granting the petition would facilitate the use of this fiber in consumer applications.¹⁰ It also stated that a new generic term (like elasterell-p) would help consumers identify products made from T400. Thus, DuPont maintained that a new generic fiber subclass name would be important to the public at large, not just knowledgeable professionals.

IV. Regulatory Flexibility Act

The provisions of the Regulatory Flexibility Act relating to an initial regulatory analysis (5 U.S.C. 603-604) are not applicable to this proposal because the Commission believes that the amendment, if promulgated, will not have a significant economic impact on a substantial number of small entities. The Commission has tentatively reached this conclusion with respect to the proposed amendment because the amendment would impose no additional obligations, penalties or costs. The amendment simply would allow covered companies to use a new generic name for a new fiber that may not appropriately fit

⁹ The executive summary of this study is included in DuPont's first supplemental petition dated March 18, 2001.

¹⁰ Addressing the extent to which its fiber has been put into active commercial use, DuPont stated in its petition that it expected production capacity of T400 to expand to several thousand tons by the end of 2001. DuPont also expects that products manufactured from T400 will be consumed primarily in the United States and Europe.

within current generic names and definitions. The amendment would impose no additional labeling requirements.

To ensure that no substantial economic impact is being overlooked, however, the Commission requests public comment on the effect of the proposed amendment on costs, profits, and competitiveness of, and employment in, small entities. After receiving public comment, the Commission will decide whether preparation of a final regulatory flexibility analysis is warranted. Accordingly, based on available information, the Commission certifies, pursuant to the Regulatory Flexibility Act (5 U.S.C. 605(b)), that the proposed amendment, if promulgated, would not have a significant economic impact on a substantial number of small entities.

V. Paperwork Reduction Act

This proposed amendment does not constitute a "collection of information" under the Paperwork Reduction Act of 1995 (PL 104-13, 109 Stat. 163) and its implementing regulations. (5 CFR 1320 *et seq.*) The collection of information imposed by the procedures for establishing generic names (16 CFR 303.8) has been submitted to OMB and has been assigned control number 3084-0101.

List of Subjects in 16 CFR Part 303

Labeling, Textile, Trade Practices.

Authority: Sec. 7(c) of the Textile Fiber Products Identification Act (15 U.S.C. 70e(c)).

By direction of the Commission.

Donald S. Clark
Secretary