# UNITED STATES INTERNATIONAL TRADE COMMISSION

# COMMERCIAL AVAILABILITY OF APPAREL INPUTS (2004): EFFECT OF PROVIDING PREFERENTIAL TREATMENT TO KNITTED APPAREL OF ANTI-MICROBIAL ELASTOMERIC FILAMENT YARN FROM ELIGIBLE CARIBBEAN BASIN, ANDEAN, AND SUB-SAHARAN AFRICAN COUNTRIES

Investigation No. 332-465-001

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Commercial Availability of Apparel Inputs (2004): Effect of Providing Preferential Treatment to Apparel from Sub-Saharan African, Caribbean Basin, and Andean Countries

# U.S. International Trade Commission Investigation No. 332-465-001

| Products                                 | Knitted Apparel of Anti-Microbial Elastomeric Filament<br>Yarn |
|--|--|
| Requesting Parties                       | Ge-Ray Fabrics, Inc.   |
| Date of Commission Report USTR<br>Public | February 14, 2005<br>February 2005                             |
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## NOTICE

## THIS REPORT IS A PUBLIC VERSION OF THE REPORT SUBMITTED TO USTR ON FEBRUARY 14, 2005. ALL CONFIDENTIAL INFORMATION HAS BEEN REMOVED AND REPLACED WITH ASTERISKS (\*\*\*).

## Summary of Findings

The Commission's analysis concerns granting duty-free treatment to U.S. imports of knitted apparel made in eligible Caribbean Basin, Andean, and Sub-Saharan African countries from certain anti-microbial elastomeric filament yarn, regardless of the source of the yarn. Four U.S. producers said they either make, or can make, anti-microbial elastomeric yarns. To the extent that the U.S. yarns are like or substitutable for the subject yarn, the proposed preferential treatment could have an adverse effect on U.S. yarn producers and their workers. However, adequate information is not available on the extent to which the U.S. yarns are like or substitutable for the subject yarn or whether any of the four U.S. producers can meet the requirements of the petitioner or apparel producers in terms of product specifications, quality, quantity, or price. The proposed preferential treatment could also have a slight adverse effect on U.S. producers of apparel likely to contain the subject yarn (e.g., hosiery) and their workers. The proposed action would likely benefit U.S. firms making such apparel in eligible countries, and their U.S.-based workers, as well as U.S. consumers.

## Background

On January 19, 2005, following receipt of a request from the United States Trade Representative (USTR), the Commission instituted investigation No. 332-465, *Commercial Availability of Apparel Inputs (2005): Effect of Providing Preferential Treatment to Apparel from Sub-Saharan African, Caribbean Basin, and Andean Countries*, under section 332(g) of the Tariff Act of 1930 (19 U.S.C. 1332(g)). This investigation provides advice regarding the probable economic effect of granting preferential treatment for apparel made from fabrics or yarns that are the subject of petitions filed by interested parties in 2005 with the Committee for the Implementation of Textile Agreements (CITA) under the "commercial availability" provisions of the African Growth and Opportunity Act (AGOA), the United States-Caribbean Basin Trade Partnership Act (CBTPA), and the Andean Trade Promotion and Drug Eradication Act (ATPDEA).<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For more information on the investigation, see the Commission's notice of investigation published in the *Federal Register* of Jan. 26, 2005 (70 F.R. 3728) and consult the Commission's website at

www.usitc.gov/ind\_econ\_ana/research\_ana/pres\_cong/332/short\_supply/shortsupintro.htm.

The Commission's advice in this report relates to a petition received by CITA on January 3, 2005, alleging that certain anti-microbial elastomeric filament yarn cannot be supplied by the domestic industry in commercial quantities in a timely manner. The petitioner requests that the President proclaim preferential treatment for knitted apparel made in eligible CBTPA, AGOA, and ATPDEA beneficiary countries from such yarn, regardless of the source of the yarn.<sup>2</sup>

#### **Discussion of the product**

The petition states that the subject yarn is classified in subheadings 5402.49.90 and 5404.10.80 of the Harmonized Tariff Schedule of the United States (HTS), which provide for a broader group of synthetic filament yarn (other than sewing thread), not put up for retail sale, and synthetic monofilament. Included are elastomeric yarn of particular types, including synthetic monofilament measuring less than 67 decitex (statistical reporting number 5402.49.9005), and synthetic monofilament measuring 67 decitex or more and of which no cross-sectional dimension exceeds 1 millimeter (5404.10.8005). The subject yarn is made from elastomeric filament fibers and ranges from about 22 to 78 decitex (20 to 70 denier).<sup>3</sup> The yarn will be used to make knitted fabrics for apparel classified in HTS chapter 61 (apparel, knitted or crocheted). The rates of duty on apparel likely to be made from the subject yarn, such as hosiery articles, range from about 10 percent to 19 percent ad valorem.

The petition states that the subject yarn contains both anti-microbial and elastomeric (stretch) properties and that this combination of properties in one yarn is not found in yarn made domestically.<sup>4</sup> The antimicrobial agent is incorporated into the yarn before extrusion--that is, the agent is added to the fiberforming substance before the substance is fed through a spinneret (a showerhead-like disc) to form the elastomeric filament fiber (e.g., spandex). The yarn looks and can be processed like any other ordinary elastomeric yarn of the same composition, but contains an agent that inhibits the growth of microbes and, in turn, controls odor in such goods as hosiery, underwear, brassieres, sweatsuits, and jogging suits. The petition states that the anti-microbial agent represents 0.2 to 5 percent by weight of the elastomeric yarn and that, even in such small quantities, it renders the entire fabric made with the yarn to be anti-microbial.<sup>5</sup> Because the anti-microbial agent "is inherent in the yarn," its effectiveness is longer lasting after repeated washings than is a anti-microbial solution applied to a finished yarn or fabric.

The petition states that only a small percentage of anti-microbial yarn is needed to make an anti-microbial fabric and that only a small percentage of elastomeric yarn is needed to make a stretch fabric. If both properties are imparted to the fabric by a small percentage of a single yarn, the remainder of the yarn in the fabric can be selected from a wide range of yarns with neither anti-microbial nor stretch properties. The petition notes that the use of the subject yarn provides for great flexibility in the production of a wide range of anti-microbial stretch fabrics and garments because the yarn can be knitted into fabrics with yarns made from different materials, such as rayon, polyester, or nylon.

<sup>&</sup>lt;sup>2</sup> The President may proclaim such action if (1) he determines that the subject fabric or yarn cannot be supplied by the domestic industry in commercial quantities in a timely manner; (2) he has obtained advice from the Commission and the appropriate advisory committee; (3) he has submitted a report, within 60 calendar days after the request, to the House Committee on Ways and Means and the Senate Committee on Finance, that sets forth the action proposed, the reasons for such action, and advice obtained; (4) a period of 60 calendar days, beginning with the day on which he has met the requirements of (3), has expired; and (5) he has consulted with such committees on the proposed action during the 60-day period referred to in (3). In Executive Order No. 13191, the President delegated to CITA the authority to determine whether particular fabrics or yarns cannot be supplied by the domestic industry in commercial quantities in a timely manner. The President authorized CITA and USTR to submit the required report to the Congress.

<sup>&</sup>lt;sup>3</sup> Decitex and denier are units of measure of linear density, or weight per unit length, of a yarn. Decitex indicates the weight, in grams, of 10,000 meters of yarn; denier indicates the weight, in grams, of 9,000 meters of yarn (the higher the number, the heavier or thicker the yarn). The conversion from denier to decitex is "denier x 1.1111".

<sup>&</sup>lt;sup>4</sup> Information in the remainder of this section on the yarn and the petitioner is from the petition filed with CITA on behalf of Ge-Ray Fabrics, Inc., by BJ Shannon, Alston & Bird LLP, Washington, DC, Jan. 3, 2005.

The petitioner (Ge-Ray Fabrics) produces and finishes knitted fabrics at its plant in Ashville, NC. The firm uses cotton and manmade-fiber yarns in the production of its knitted fabrics, many of which contain elastomeric yarn. The firm seeks to purchase \*\*\* of the anti-microbial elastomeric filament yarn annually, in order to make \*\*\* of knitted fabrics. The subject yarn is made in Korea by the Hyosung Corp.

#### Discussion of affected U.S. industries, workers, and consumers<sup>6</sup>

#### Fiber and yarn producers

Commission staff contacted INVISTA, RadiciSpandex Corp., Unifi, Inc., Dorlastan Fibers and Monofil GmbH, and Milliken & Co. regarding domestic production of the subject yarn. All of these firms, except Dorlastan Fibers and Monofil GmbH, submitted written statements to CITA in opposition to the petition.

INVISTA, a U.S. producer of fibers and intermediates (formerly DuPont Textiles & Interiors), stated in its submission to CITA that it has developed U.S. anti-microbial elastomeric filament yarns at its plant in Waynesboro, VA. The firm noted that it incorporates a small amount of anti-microbial agent in its elastomeric yarn before extrusion without affecting the yarn's clarity, surface gloss, or physical properties, and that the firm is "fully prepared to supply such materials in commercial quantities in a timely fashion." An INVISTA representative stated that the firm has the capacity and capability to expand U.S. production of the yarn and can supply the yarn in commercial quantities and in the specified sizes ranging from 20 to 70 denier.<sup>7</sup> According to the representative, \*\*\*.

In its submission to CITA, Milliken & Co., Spartanburg, SC, a diversified producer of textile mill products and chemicals for use in textile and packaging products, stated that its proprietary product imparts silver inorganic anti-microbial properties to elastomeric fiber (and other fiber), and that combining this technology with available domestic elastomeric-spandex fiber/yarn will yield commercial quantities of the subject yarn.<sup>8</sup>

A representative of RadiciSpandex Corp., Gastonia, NC, a U.S. producer of elastomeric filament yarn, said that the firm has the capability, willingness, and interest to make the subject yarn.<sup>9</sup> In its written submission to CITA, the firm stated that it could satisfy the technical requirements for such a yarn and that supply will be made available within 60 days of the date of its submission. A representative of RadiciSpandex stated that the firm is capable of producing the subject yarn, \*\*\*<sup>10\*\*\*</sup>.

Unifi, Inc., Greensboro, NC, a U.S. producer of textured yarns, including anti-microbial elastomeric yarn, stated that it makes anti-microbial elastomeric yarns that are substitutable for the subject yarns.<sup>11</sup> A Unifi official said the firm produces a yarn that combines spandex with polyester and nylon yarns with antimicrobial properties that is substitutable for the subject yarn. He explained that Unifi's yarns are produced by gimping<sup>12</sup> a standard spandex yarn with a polyester or nylon yarn that has an embedded anti-microbial agent. The resulting yarn when knitted into a fabric, imparts anti-microbial properties to the fabric. The Unifi official also noted that \*\*\*.

<sup>&</sup>lt;sup>6</sup> In general, the manufacturing progression for knitted apparel made from the subject yarn is (1) the anti-microbial additive is mixed in the fiber-forming solution, which is then extruded through spinnerets into elastomeric filament yarn, (2) the yarn is knitted with other yarns (e.g., polyester or nylon) into fabrics, (3) the knitted fabrics are printed, dyed, and cut into components, and (4) the components are sewn into finished garments.

<sup>&</sup>lt;sup>7</sup> Manufacturing the different deniers is a function of changing spinnerets. Mary K. Vane, Vice President, International Trade, INVISTA, telephone interviews by Commission staff, Jan. 28 and Feb. 2, 2005.

<sup>&</sup>lt;sup>8</sup> Milliken reportedly has significant capacity to produce its proprietary product (Alphsan). Matt Richardson, Vice President, Specialty Yarns & Fibers, Milliken & Co., telephone interview by Commission staff, Feb. 7, 2005.

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<sup>&</sup>lt;sup>11</sup> Information on Unifi is from \*\*\*.

<sup>&</sup>lt;sup>12</sup> Gimping is a process of wrapping a core yarn, such as a spandex yarn, with another yarn. A gimped yarn differs from twisted yarn in that the core yarn does not twist with the yarn that is wrapped around it.

A representative of Dorlastan Fibers and Monofil GmbH, Charleston, SC, a U.S. producer of fibers, stated that the firm currently produces anti-microbial elastomeric yarns \*\*\*, in commercial quantities \*\*\*, and in a timely manner \*\*\*.<sup>13</sup> \*\*\*

The petitioner, Ge-Ray Fabrics, stated in its petition that to its knowledge, Hyosung Corp. of Korea is the sole producer of anti-microbial elastomeric filament yarn and that it manufactures the yarn at its facilities in Korea under the brand-name Creora C100B.<sup>14</sup> Ge-Ray stated that other yarns such as those made of polyester or nylon had anti-microbial but not elastomeric properties, whereas other yarns had elastomeric but not antimicrobial properties. Ge-Ray stated that it had not be able to find any U.S.-made yarns that combined elastomeric properties with anti-microbial properties. \*\*\*

### Fabric and apparel producers

The petitioner was the only U.S. firm identified as producing knit fabric from the subject yarns for use in knitted apparel such as underwear, hosiery, sweatsuits, and jogging suits. \*\*\*<sup>15</sup>\*\*\*

Sara Lee was identified as a U.S. producer of apparel (e.g., under the Hanes label) that uses anti-microbial elastomeric yarn; \*\*\*.<sup>16</sup> \*\*\*.

## Views of interested parties

RadiciSpandex Corp. filed a written submission with the Commission voicing its opposition to the petition. The firm asserted that it can and will manufacture commercially viable anti-microbial elastomeric filament yarns for the proposed uses contemplated by the petitioner within 60 days. RadiciSpandex noted that it has been actively engaged in activity specific to providing an anti-microbial elastomeric filament yarn that will satisfy the petitioner's technical requirements and has manufactured samples of the same.

#### Probable economic effect advice<sup>17</sup>

The Commission's analysis concerns granting duty-free treatment to U.S. imports of knitted apparel made in eligible CBTPA, ATPDEA, and AGOA countries from the subject anti-microbial elastomeric filament yarn, regardless of the source of the yarn. Four U.S. producers state that they either make, or can make, anti-microbial elastomeric filament yarns. To the extent that the U.S. yarns are like or substitutable for the subject yarn, the proposed preferential treatment could have an adverse effect on U.S. yarn producers and their workers because it could reduce demand for the U.S. yarns and, in turn, weaken demand for U.S.-made spandex used in the yarns. However, adequate information is not available on the extent to which the U.S. yarns are like or substitutable for the subject yarn or whether any of the four U.S. producers can meet the requirements of the petitioner or apparel producers in terms of product specifications, quality, quantity, or price. \*\*\*

The proposed preferential treatment also could have a slight adverse effect on U.S. producers of apparel articles made with anti-microbial elastomeric yarn, such as hosiery products. U.S. producers reportedly account for an estimated 45 percent of the domestic market for hosiery products, many of which contain anti-microbial elastomeric yarn.<sup>18</sup> (Another important market for such yarn is underwear; however, the domestic market for underwear reportedly is supplied almost entirely by imports.) The proposed preferential treatment would likely benefit U.S. firms making apparel products from the subject yarn in

<sup>&</sup>lt;sup>13</sup> \*\*\*, telephone interview by Commission staff, Feb. 9, 2005.

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<sup>&</sup>lt;sup>16</sup> Jerry Cook, Sara Lee, Winston Salem, NC, telephone interview by Commission staff, Feb. 4, 2005.

<sup>&</sup>lt;sup>17</sup> The Commission's advice is based on information currently available to the Commission.

<sup>&</sup>lt;sup>18</sup> Don St. Louis, Director, Hosiery Technology Center, telephone interview by Commission staff, Feb. 8, 2005.

eligible beneficiary countries, and their U.S.-based workers, by increasing the supply and availability of the yarn. The proposed preferential treatment would also likely benefit U.S. consumers of the apparel made from the subject yarn to the extent that importers pass on some of the duty savings to retail consumers.