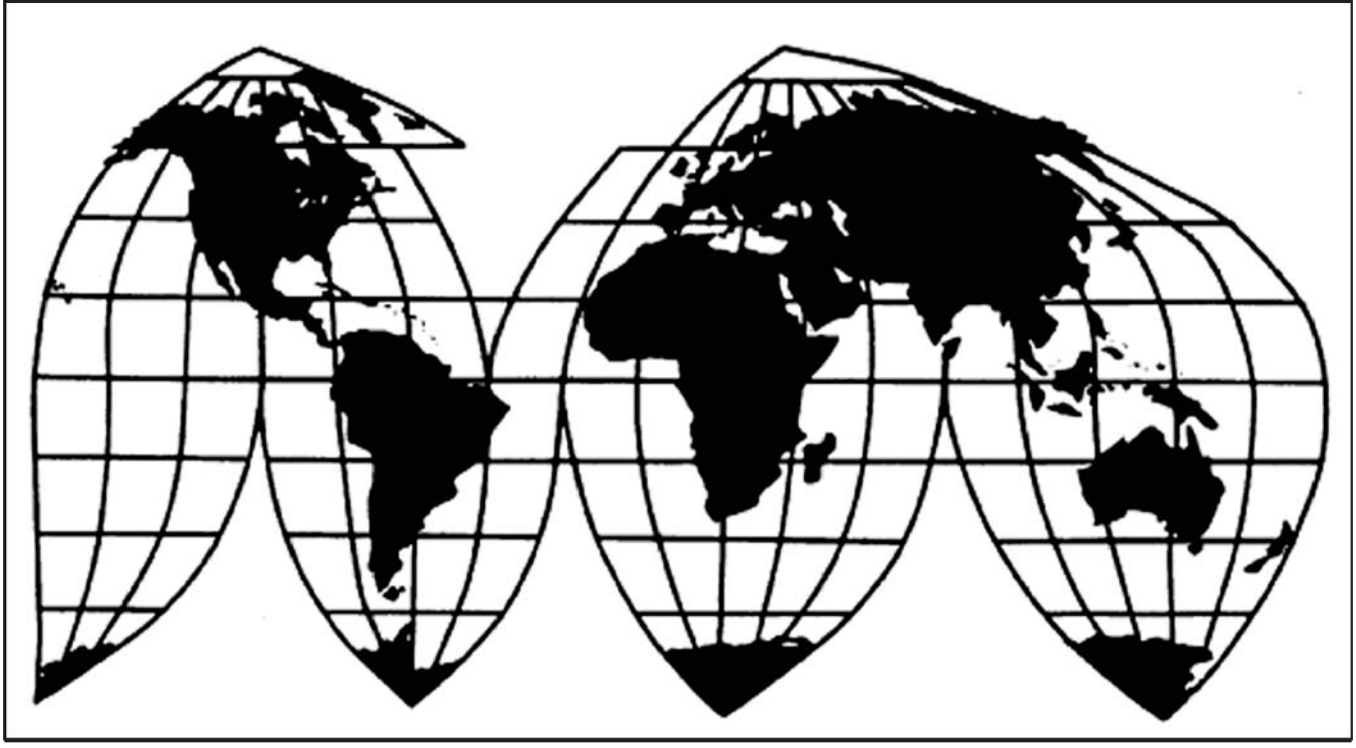
Certain Amorphous Silica Fabric from China

Investigation Nos. 701-TA-555 and 731-TA-1310 (Preliminary)

Publication 4598 **March 2016**

U.S. International Trade Commission



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Address all communications to
Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

U.S. International Trade Commission

Washington, DC 20436
www.usitc.gov

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-555 and 731-TA-1310 (Preliminary)

Certain Amorphous Silica Fabric from China

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of certain amorphous silica fabric from China, provided for in subheadings 7019.59.40 and 7019.59.90 of the Harmonized Tariff Schedule of the United States, that are alleged to be subsidized by the government of China and sold in the United States at less than fair value ("LTFV").

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in section 207.21 of the Commission's rules, upon notice from the Department of Commerce ("Commerce") of affirmative preliminary determinations in the investigations under sections 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under sections 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

BACKGROUND

On January 20, 2016, Auburn Manufacturing, Inc., Mechanic Falls, Maine, filed a petition with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized and LTFV imports of certain amorphous silica fabric from China. Accordingly, effective January 20, 2016, the Commission, pursuant to sections 703(a) and 733(a) of the Tariff Act of 1930 (19 U.S.C. §§ 1671b(a) and

[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(f)).

1673b(a)), instituted countervailing duty investigation No. 701-TA-555 and antidumping duty investigation No. 731-TA-1310 (Preliminary).

Notice of the institution of the Commission's investigations and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of January 26, 2016 (81 FR 4335). The conference was held in Washington, DC, on February 10, 2016, and all persons who requested the opportunity were permitted to appear in person or by counsel.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of certain amorphous silica fabric ("ASF") from China that are allegedly sold in the United States at less than fair value ("LTFV") and that are allegedly subsidized by the government of China.

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping and countervailing duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determinations, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of the allegedly unfairly traded imports.[1] In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."[2]

II. Background

Auburn Manufacturing, Inc. ("Auburn" or "petitioner"), a domestic producer of industrial grade ASF, filed petitions in these investigations on January 20, 2016. Representatives of Auburn appeared at the staff conference and filed a postconference brief.

Several respondent entities participated in these investigations. Access China Industrial Textile, Inc., d/b/a/ ACIT (USA) Inc., an importer of the subject merchandise, and its affiliates ACIT (Pinghu) Inc. and ACIT (Shanghai) Inc., producers and exporters of the subject merchandise in China (collectively "ACIT"), appeared at the staff conference and submitted a postconference brief. AVS Industries, LLC ("AVS"), an importer of subject merchandise, appeared at the staff conference and submitted a postconference brief. Purchaser Lewco Specialty Products, Inc. ("Lewco") also appeared at the conference.

U.S. industry data are based on the questionnaire responses of two domestic producers, Auburn and HITCO Carbon Composites, Inc. ("HITCO"), which account for all known U.S. production of ASF.[3] U.S. import data are based on responses to Commission questionnaires.[4]

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[1] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

[2] *American Lamb Co.*, 785 F.2d at 1001; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

[3] Confidential Report ("CR") and Public Report ("PR") at III-1.

[4] CR at I-5, PR at I-4.

The seven firms that responded to the importer questionnaire accounted for a majority of U.S. imports of ASF from China during 2015.[5] The Commission received responses to its foreign producer questionnaires from four firms, with reported exports to the United States equivalent to *** percent of reported U.S. imports of ASF from China. Based on their estimates, these firms represent at least *** percent of overall production of ASF in China in 2015.[6]

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the "domestic like product" and the "industry."[7] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[8] In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[9]

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[10] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[11] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[12] Although the Commission must accept

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[5] CR/PR at IV-1.

[6] CR at VII-3, PR at VII-3 (two of the four firms did not provide estimates of the share of production in China for which they accounted).

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(4)(A).

[9] 19 U.S.C. § 1677(10).

[10] *See, e.g., Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); NEC Corp. v. Department of Commerce, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); Nippon Steel Corp. v. United States, 19 CIT 450, 455 (1995); *Torrington Co. v. United States,* 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), aff'd, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

[11] *See*, *e.g.*, S. Rep. No. 96-249 at 90-91 (1979).

[12] *See*, *e.g.*, *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49*; see also* S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like (Continued…)

the U.S. Department of Commerce's ("Commerce") determination as to the scope of the imported merchandise that is allegedly subsidized and/or sold at LTFV,[13] the Commission determines what domestic product is like the imported articles Commerce has identified.[14]

A. Scope Definition

In its notices of initiation, Commerce defined the imported merchandise within the scope of the investigations as follows:

> The product covered by these investigations is woven (whether from yarns or rovings) industrial grade amorphous silica fabric, which contains a minimum of 90 percent silica (SiO_2) by nominal weight, and a nominal width in excess of 8 inches. The investigation{s} cover{ } industrial grade amorphous silica fabric regardless of other materials contained in the fabric, regardless of whether in roll form or cut-to-length, regardless of weight, width (except as noted above), or length. The investigation{s} cover{ } industrial grade amorphous silica fabric regardless of whether the product is approved by a standards testing body (such as being Factory Mutual (FM) Approved), or regardless of whether it meets any governmental specification.
>
> Industrial grade amorphous silica fabric may be produced in various colors. The investigation{s} cover{ } industrial grade amorphous silica fabric regardless of whether the fabric is colored. Industrial grade amorphous silica fabric may be coated or treated with materials that include, but are not limited to, oils, vermiculite, acrylic latex compound, silicone, aluminized polyester (Mylar®) film, pressure-sensitive adhesive, or other coatings and treatments. The investigation{s} cover{ } industrial grade amorphous silica fabric regardless of whether the fabric is coated or treated, and regardless of coating or treatment weight as a percentage of total product weight. Industrial grade amorphous silica fabric may be

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(…Continued)
product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

[13] *See*, *e.g.*, *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

[14] *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Torrington*, 747 F. Supp. at 748-52 (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

heat-cleaned. The investigation{s} cover{ } industrial grade amorphous silica fabric regardless of whether the fabric is heat-cleaned.

Industrial grade amorphous silica fabric may be imported in rolls or may be cut-to-length and then further fabricated to make welding curtains, welding blankets, welding pads, fire blankets, fire pads, or fire screens. Regardless of the name, all industrial grade amorphous silica fabric that has been further cut-to-length or cut-to-width or further finished by finishing the edges and/or adding grommets, is included within the scope of th{ese} investigation{s}.

Subject merchandise also includes (1) any industrial grade amorphous silica fabric that has been converted into industrial grade amorphous silica fabric in China from fiberglass cloth produced in a third country; and (2) any industrial grade amorphous silica fabric that has been further processed in a third country prior to export to the United States, including but not limited to treating, coating, slitting, cutting to length, cutting to width, finishing the edges, adding grommets, or any other processing that would not otherwise remove the merchandise from the scope of the investigation{s} if performed in the country of manufacture of the in-scope industrial grade amorphous silica fabric.

Excluded from the scope of the investigation{s} is amorphous silica fabric that is subjected to controlled shrinkage, which is also called "pre-shrunk" or "aerospace grade" amorphous silica fabric. In order to be excluded as a pre-shrunk or aerospace grade amorphous silica fabric, the amorphous silica fabric must meet the following exclusion criteria: (1) the amorphous silica fabric must contain a minimum of 98 percent silica (SiO_2) by nominal weight; (2) the amorphous silica fabric must have an areal shrinkage of 4 percent or less; (3) the amorphous silica fabric must
contain no coatings or treatments; and (4) the amorphous silica fabric must be white in color. For purposes of this scope, "areal shrinkage" refers to the extent to which a specimen of amorphous silica fabric shrinks while subjected to heating at 1800 degrees F for 30 minutes.

Also excluded from the scope are amorphous silica fabric rope and tubing (or sleeving). Amorphous silica fabric rope is a knitted or braided product made from amorphous silica yarns. Silica tubing (or sleeving) is braided into a hollow sleeve from amorphous silica yarns.

The subject imports are normally classified in subheadings 7019.59.4021, 7019.59.4096, 7019.59.9021, and 7019.59.9096 of the Harmonized Tariff Schedule of the United States (HTSUS), but may also enter under HTSUS

> subheadings 7019.40.4030, 7019.40.4060, 7019.40.9030, 7019.40.9060, 7019.51.9010, 7019.51.9090, 7019.52.9010, 7019.52.9021, 7019.52.9096 and 7019.90.1000. HTSUS subheadings are provided for convenience and customs purposes only; the written description of the scope of th{ese} investigation{s} is dispositive.[15]

Industrial grade ASF is a woven textile product composed of numerous fine, discrete silica strands. It typically contains 96 percent silica, but may contain as little as 90 percent silica. Industrial grade ASF possesses a number of properties that make it suitable for use in extreme heat applications, including thermal survivability, low thermal conductivity, chemical non-reactivity, flexibility, strength, abrasion resistance, and ease of handling. Specifically, industrial grade ASF is capable of withstanding heat up to 1,800 degrees F without sacrificing any of its other properties and will remain in usable cloth form up to approximately 2,300 degrees F, albeit with some loss of flexibility. It is principally used for welding protection and high temperature processing operations.[16]

B. Arguments of the Parties

Auburn argues that the Commission should define the domestic like product as coextensive with Commerce's scope. It contends that industrial grade ASF is a product distinct from articles excluded from the scope such as aerospace grade ASF and ASF rope, tubing, and tape. It asserts that aerospace grade ASF and ASF rope, tubing, and tape are produced from different inputs and have different physical properties, manufacturing processes, and end uses than industrial grade ASF. Auburn also states that the excluded products are not interchangeable with industrial grade ASF, are sold through different channels of distribution, are perceived as products different from industrial grade ASF, and are sold at price ranges that differ from those for industrial grade ASF.[17]

ACIT indicates that it does not object to Auburn's proposed definition of the domestic like product for purposes of these preliminary phase investigations.[18]

C. Analysis

Based on the record in these preliminary phase investigations, we do not find aerospace grade ASF or ASF rope, tubing, or tape to be part of the domestic like product. We define a

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[15] *Certain Amorphous Silica Fabric from the People's Republic of China: Initiation of Countervailing Duty Investigation*, 81 Fed. Reg. 8909, 8912 (Feb. 23, 2016); *Certain Amorphous Silica Fabric from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 81 Fed. Reg. 8913, 8917 (Feb. 23, 2016). The scope's formula for measuring shrinkage is omitted.

[16] CR at I-13-20, PR at I-9-13.

[17] Auburn's Postconference Brief at 2-9.

[18] ACIT's Postconference Brief at 2. AVS did not address domestic like product in its testimony or postconference brief.

single domestic like product, consisting of all industrial grade ASF, that is coextensive with the scope of investigation.

1. Whether to Include Aerospace Grade ASF in the Domestic Like Product

Physical Characteristics and Uses. Aerospace grade ASF, which is expressly excluded from the scope definition, and industrial grade ASF have different physical characteristics. Aerospace grade ASF has a very low residual areal shrinkage of four percent or less, compared to an areal shrinkage of 14 to 16 percent for industrial grade ASF. Aerospace grade ASF production begins with a different, "lot glass" fiberglass input and has a minimum silica content of 98 percent. Industrial grade ASF usually has a silica content of 96 percent, although it could be as low as 90 percent. Aerospace grade ASF is weaker than industrial grade ASF, generally does not include silicone or other coatings, and has less abrasion resistance than industrial grade ASF.

The uses for aerospace grade ASF and industrial grade ASF also differ. Industrial grade ASF is primarily used for welding and other hot-work protection. Aerospace grade ASF is primarily used to make pre-impregnated material for downstream composites for the aerospace industry.[19]

Common Manufacturing Facilities, Production Process, and Production Employees. Aerospace grade ASF and industrial grade ASF can require different manufacturing facilities and production processes. Auburn does not produce aerospace grade ASF, while HITCO produces it ***.[20] The production of industrial grade ASF encompasses various steps to prepare fiberglass yarn for weaving followed by the actual weaving to produce cloth that is generally 36 inches or 60 inches wide. The cloth is then subjected to heat cleaning to remove starches and oils. It then undergoes a leaching process, in which the cloth is submerged in a hydrochloric solution for approximately seven hours to remove non-silica elements, thus increasing the silica content of the woven cloth from 55 percent to 93 percent or more. Most industrial grade ASF contains at least 96 percent silica. The next process dries the fabric, and then a light coating of silicone oil is applied. Additional coatings may be applied to meet customer application requirements.[21]

By contrast, aerospace grade ASF requires a special oven to preshrink the fabric before it can be impregnated into downstream products. Industrial grade ASF is not preshrunk and often requires the use of special final-step coatings, which aerospace grade ASF does not.[22]

Channels of Distribution. Aerospace grade ASF and industrial grade ASF are sold in different channels of distribution. Aerospace grade ASF is sold to intermediate manufacturers that impregnate the fabric with resins and then sell it to other companies that use the material to fabricate aerospace parts. Industrial grade ASF, on the other hand, is either sold to

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[19] Auburn's Postconference Brief at 4-5; *see also* CR at I-12, PR at I-9. Auburn's assertions concerning the similarities and distinctions between ASF and out-of-scope products such as aerospace grade ASF and ASF rope, tubing, and tape were not disputed.

[20] CR at III-2, PR at III-1; Auburn and HITCO Questionnaires.

[21] CR at I-13-20, PR at I-9-13.

[22] Auburn's Postconference Brief at 6.

distributors or directly to end users for use as a shield against sparks and molten metal splash, refractory lining, and furnace curtains and covers for ducting and pipes.[23]

Interchangeability. Industrial grade ASF cannot be used for aerospace applications because it does not meet the minimum 98 percent silica content requirement and is not pre-shrunk. Aerospace grade ASF similarly cannot be used for many industrial grade ASF applications because the aerospace grade ASF contains no coatings and is too brittle to meet industrial grade ASF abrasion-resistance requirements.[24]

Customer and Producer Perceptions of the Products. Customers perceive aerospace grade ASF and industrial grade ASF as distinct products. Aerospace grade ASF customers would consider industrial grade ASF as lacking sufficient traceability of the glass raw material input and the silica content and preshrinking necessary for aerospace applications. Industrial customers would consider aerospace grade ASF as too brittle and lacking the abrasion resistance required for industrial grade ASF applications.[25]

Price. Aerospace grade ASF differs substantially from industrial grade ASF in terms of price. It can be several times the price of industrial grade ASF.[26]

Conclusion. Because there are clear and undisputed distinctions between industrial grade ASF and out-of-scope aerospace grade ASF, we do not include aerospace grade ASF in the domestic like product.

2. Whether to Include ASF Rope, Tubing, and Tape in the Domestic Like Product

Physical Characteristics and Use. ASF rope, tubing, and tape are excluded from the scope definition. Unlike industrial grade ASF, which is flat, ASF rope and tubing are round; although ASF tape is flat, it is generally woven thicker and narrower than industrial grade ASF. Industrial grade ASF is usually woven with smaller diameter, lighter-weight filament yarns than rope, tubing, or tape. ASF rope and tape are used mainly as gasketing materials on flanges or oven doors, and tubes are mainly used as gasketing or hose or wiring cover; industrial grade ASF, on the other hand, is generally used for welding protection.[27]

Common Manufacturing Facilities, Production Process, and Production Employees. ASF rope and tubing are manufactured on circular knitting or braiding machines. Tape generally is produced on narrow looms, which cannot be used to produce industrial grade ASF. Although tape can be produced from slit cloth, that process would include laminating on one side to prevent raveling, which does not occur in the production of industrial grade ASF.[28]

Channels of Distribution. ASF rope, tubing, and tape usually are sold through special distributors that sell gasketing materials for maintenance repair operations. Industrial grade

[23] Auburn's Postconference Brief at 5-6.
[24] Auburn's Postconference Brief at 5.
[25] Auburn's Postconference Brief at 6.
[26] Conference Transcript at 121 (Dill).
[27] Auburn's Postconference Brief at 7; *see* CR at I-12, PR at I-9.
[28] Auburn's Postconference Brief at 8.

ASF, on the other hand, is sold directly to end users, or through other distributors to end users, for use in welding and other hot-work markets.[29]

Interchangeability. There is no meaningful potential for interchangeability given the differences in the physical characteristics of ASF rope, tubing, and tape, which are designed specifically for use as gasketing materials, and industrial grade ASF, which is designed for protection in welding and other hot-work operations.[30]

Customer and Producer Perceptions of the Product. ASF rope, tubing, and tape are perceived as different products than industrial grade ASF. They are designed for different applications. In addition, as noted above, they are not interchangeable with industrial grade ASF.[31]

Price. Auburn asserts that the price of industrial grade ASF is reportedly *** percent higher than the price of ASF rope, tubing, and tape.[32]

Conclusion. As compared to industrial grade ASF, ASF rope, tubing, and tape have distinct physical forms and uses and are produced differently. They also are not interchangeable with industrial grade ASF. We accordingly do not include ASF rope, tubing, or tape in the domestic like product.

3. Conclusion

In view of the foregoing discussion and the fact that no party has argued for a different result, we define a single domestic like product that is coextensive with the scope of these investigations.

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[33] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

Based on the record presented, and in light of the definition of the domestic like product, we define a single domestic industry encompassing all U.S. producers of ASF.[34]

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[29] Auburn's Postconference Brief at 8.

[30] Auburn's Postconference Brief at 8.

[31] Auburn's Postconference Brief at 9.

[32] Auburn's Postconference Response to Commission Staff Conference Questions at 2.

[33] 19 U.S.C. § 1677(4)(A).

[34] We do not exclude any producer from the domestic industry pursuant to the related party provision at Section 771(4)(B) of the Tariff Act, 19 U.S.C. § 1677(4)(B). Domestic producer ***. CR at III-8, PR at III-3; *** Producers Questionnaire, EDIS Doc. 574557, response to question II-12. A purchaser of subject merchandise is a related party only if it controls large volumes of subject imports. The Commission has found such control to exist when the domestic producer was responsible for a (Continued…)

V. Reasonable Indication of Material Injury by Reason of Subject Imports[35]

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[36] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.[37] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[38] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[39] No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[40]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured by reason of" unfairly traded imports,[41] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[42] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the

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(…Continued)
predominant proportion of an importer's purchases and these purchases were substantial. *See Electrolytic Manganese Dioxide from Australia and China*, Inv. Nos. 731-TA-1124-1125 (Final), USITC Pub. 4036 (Sep. 2008) at 6 n.26. ***. CR at III-8, PR at III-3. These purchases did not constitute a predominant proportion of ***. Importer Questionnaire, EDIS Doc. 573640, response to question II-5. Consequently, *** is not a related party.

[35] Negligibility is not at issue in these investigations because subject imports from China accounted for all reported imports of ASF in 2015, and thus exceed the three percent negligibility threshold. CR/PR at Table IV-2. *See* 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B).

[36] 19 U.S.C. §§ 1671b(a), 1673b(a). The Trade Preferences Extension Act of 2015, Pub. L. 114-27, amended the provisions of the Tariff Act pertaining to Commission determinations of reasonable indication of material injury and threat of material injury by reason of subject imports in certain respects. We have applied these amendments here to the extent pertinent and practicable.

[37] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... {a}nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[38] 19 U.S.C. § 1677(7)(A).

[39] 19 U.S.C. § 1677(7)(C)(iii).

[40] 19 U.S.C. § 1677(7)(C)(iii).

[41] 19 U.S.C. §§ 1671b(a), 1673b(a).

[42] *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), *aff'g* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[43]

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.[44] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[45] Nor does the

[43] The Federal Circuit, in addressing the causation standard of the statute, has observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was re-affirmed in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), in which the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass'n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

[44] SAA, H.R. Rep. 103-316, Vol. I at 851-52 (1994) ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); *accord Mittal Steel*, 542 F.3d at 877.

[45] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n* , 266 F.3d at 1345. ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec.
(Continued…)

"by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[46] It is clear that the existence of injury caused by other factors does not compel a negative determination.[47]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports" and the Commission "ensure{s} that it is not attributing injury from other sources to the subject imports."[48] [49] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[50]

(…Continued)
2003) (Commission recognized that "{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e*., it is not an 'other causal factor,' then there is nothing to further examine regarding attribution to injury"), *citing Gerald Metals,* 132 F.3d at 722 (the statute "does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

[46] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

[47] *See Nippon*, 345 F.3d at 1381 ("an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the 'dumping' need not be the sole or principal cause of injury.").

[48] *Mittal Steel*, 542 F.3d at 877-78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 792 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[49] Vice Chairman Pinkert and Commissioner Kieff do not join this paragraph or the following three paragraphs. They point out that the Federal Circuit, in *Bratsk*, 444 F.3d 1369, and *Mittal Steel*, held that the Commission is *required*, in certain circumstances when analyzing present material injury, to consider a particular issue with respect to the role of nonsubject imports, without reliance upon presumptions or rigid formulas. The Court has not prescribed a specific method of exposition for this consideration. *Mittal Steel* explains as follows:

> What *Bratsk* held is that "where commodity products are at issue and fairly traded, price competitive, non-subject imports are in the market," the Commission would not fulfill its obligation to consider an important aspect of the problem if it failed to consider whether non-subject or non-LTFV imports would have replaced LTFV subject imports during the period of investigation without a continuing benefit to the domestic industry. 444 F.3d at 1369. Under those circumstances, *Bratsk* requires the Commission to consider whether replacement of the LTFV subject imports might have occurred during the period of investigation, and it requires the Commission to provide an explanation of its conclusion with respect to that factor.

(Continued…)

The Federal Circuit's decisions in *Gerald Metals*, *Bratsk,* and *Mittal Steel* all involved cases in which the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[51] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

Mittal Steel clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record 'to show that the harm occurred 'by reason of' the LTFV imports,'" and requires that the Commission not attribute injury from nonsubject imports or other factors to subject imports.[52] Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

The progression of *Gerald Metals*, *Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.[53]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial

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(…Continued)
542 F.3d at 878.

[50] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal Steel*, 542 F.3d at 879 ("*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

[51] *Mittal Steel*, 542 F.3d at 875-79.

[52] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission's alternative interpretation of *Bratsk* as a reminder to conduct a non-attribution analysis).

[53] To that end, after the Federal Circuit issued its decision in *Bratsk*, the Commission began to present published information or send out information requests in the final phase of investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission's causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested information in the final phase of investigations in which there are substantial levels of nonsubject imports.

evidence standard.[54] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[55]

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

1. Demand Conditions

U.S. demand for industrial grade ASF depends on the demand for domestically produced downstream products using ASF.[56] Industrial grade ASF is used to insulate and to resist extreme heat so as to conserve energy and protect people, materials, and machinery from potential injury or damage. Some specific applications for industrial grade ASF are as shields for ducting and pipes; protection from sparks and molten metal splash; insulating blankets in heat-treating, welding, and other high-temperature processing operations; and refractory lining and furnace curtains.[57] Demand reportedly can be affected by defense spending levels, including spending for military shipbuilding and repair, as well as by oil and gas prices and general economic conditions.[58]

According to respondents, demand has increased for mid-silica fabric, a product that has a silica content below 90 percent and often only 80 percent, which consequently is not included in Commerce's scope. They assert that mid-silica fabric, although less heat resistant than industrial grade ASF, tends to be stronger than most industrial grade ASF because less of the material is lost in the leaching process and is less expensive to produce because of a shorter leaching process. They argue that mid-silica fabric can be used in place of industrial grade ASF at temperatures below 1,200 or 1,300 degrees, which would allow it to be used in applications associated with plastic production, pulp and paper production, and power turbines with super-heated steam.[59] Respondents contend that mid-silica fabric can meet 98 percent of end use applications for industrial grade ASF in the United States and that it already accounts for about

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[54] We provide below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[55] *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp*., 458 F.3d at 1350, *citing U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

[56] CR at II-7, PR at II-5.

[57] CR at I-11-12, PR at I-8.

[58] CR at II-6, II-8-9; PR at II-5-6. Petitioner states that almost half of U.S. demand is for ASF used in shipbuilding and repair. Petitioner also reported that *** percent of its sales during the period of investigation ("POI"), which includes calendar years 2013, 2014, and 2015, were military sales and that its sales ***. CR at II-7, PR at II-4. In any final phase of these investigations, we intend to seek additional information concerning end uses for industrial grade ASF and the extent to which purchases of industrial grade ASF for military applications were made by the U.S. military itself or by military contractors.

[59] CR at II-10-11, PR at II-7-8; *see also* CR at I-10 n.15, PR at 1-8 n.15.

30 percent of total U.S. imports of silica fabrics.[60] Petitioner states that, to the best of its knowledge, there is no U.S. market for mid-silica fabric and that fabric with a silica content of 80 percent would not provide effective temperature resistance for known applications of industrial grade ASF.[61]

*** U.S. producers indicated that U.S. demand for industrial grade ASF had *** since 2013, whereas importers had mixed views as to how U.S. demand had changed.[62] Apparent U.S. consumption declined overall by *** percent from 2013 to 2015.[63] Apparent U.S consumption was *** kg in 2013, *** kg in 2014, and *** kg in 2015.[64]

2. Supply Conditions

The U.S. market for industrial grade ASF is supplied by the domestic industry, subject imports, and imports from other sources. The domestic industry's market share increased from *** percent in 2013 to *** percent in 2014 before declining to *** percent in 2015, for an overall decline of *** percentage points.[65] Auburn is the primary U.S. producer of industrial grade ASF, accounting for *** percent of domestic production in 2015; HITCO accounted for *** percent.[66] The domestic industry's annual capacity was *** kg in 2013, *** kg in 2014, and *** kg in 2015. This capacity was sufficient in 2014 and 2015 to satisfy apparent U.S. consumption.[67]

Subject imports accounted for the largest share of the U.S market. Subject imports' share of apparent U.S. consumption declined from *** percent in 2013 to *** percent in 2014

[60] ACIT's Postconference Brief at 5; see also AVS's Postconference Brief at 4-5.

[61] CR/PR at I-10 n.15, II-10; PR at I-8 n.15, II-7. We will investigate the role of mid-silica fabric in affecting demand for industrial grade ASF in any final phase of these investigations. We encourage parties to provide suggestions in their comments on draft questionnaires regarding the best way to collect data concerning how and to what extent mid-silica fabric is used in the U.S. market.

[62] CR/PR at Table II-3. *** reported that U.S. demand had increased since 2013, *** reported demand had decreased, *** reported it had fluctuated, and *** reported no change. *Id.*

[63] CR/PR at Table C-1. The staff report bases subject import volume data, including as a component of apparent U.S. consumption, on importer questionnaire responses. This is because the classifications of the Harmonized Tariff Schedules of the United States (HTSUS) under which ASF is or may be reported in official Commerce statistics are either residual categories that include considerable quantities of out-of-scope merchandise or, in some instances, narrow categories that may or may not include subject imports. Additionally, questionnaire data appear to include a majority of all subject imports based on staff's review of the conference testimony and other communications with market participants. As stated below, we intend to explore further in any final phase of these investigations the presence of nonsubject imports in the U.S. market, which may have an effect on our calculation of apparent U.S. consumption.

[64] CR/PR at Table IV-4.

[65] CR/PR at Table IV-5.

[66] CR/PR at Table III-1.

[67] *Compare* CR/PR at Table III-2 *with* CR/PR at Table IV-5.

before increasing to *** percent in 2015, for an overall increase of *** percentage points between 2013 and 2015.[68]

The questionnaire data show few nonsubject imports, the market share of which was *** percent in 2013 and 2014 and *** percent in 2015.[69] The record, however, indicates the possibility that industrial grade ASF from nonsubject sources is actually present at levels greater than those reflected in the questionnaire data.[70] We intend to explore further in any final phase of these investigations the presence in the U.S. market of industrial grade ASF from nonsubject sources.

3. Substitutability and Other Conditions

We find that there is a moderate degree of substitutability between domestically produced industrial grade ASF and subject imports, although the degree of substitutability varies depending on the application in which the industrial grade ASF will be used and purchaser constraints, including the Buy American and Berry Amendment provisions addressed below.[71] *** domestic producers reported that the domestic like product and the subject imports were *** interchangeable, and all responding importers reported that the products were *** interchangeable.[72] *** domestic producer reported that non-price differences were *** significant in purchasing decisions between the domestic like product and the subject imports, and *** reported that such differences were sometimes significant; importers were evenly divided in reporting whether non-price differences were always, frequently, or sometimes significant in such purchasing decisions.[73]

Specific differences domestic producers cited between the subject imports and the domestic like product included differences in ***.[74] Specific differences importers cited include differences in strength and surface finish, quality, product range, technical support, delivery time, and payment terms.[75] We find that price is at least moderately important in purchasing decisions in light of the degree of substitutability between subject imports and the domestic like product and the relative importance of non-price factors.

As discussed in more detail below, a number of issues have been raised in the preliminary phase of these investigations regarding the substitutability and degree of

[68] Subject imports' share of apparent U.S. consumption was *** percent in 2013, *** percent in 2014, and *** percent in 2014. CR/PR at Table IV-5.

[69] CR/PR at Table IV-5.

[70] *E.g.*, CR at VII-7, PR at VII-4. The record indicates that industrial grade ASF is currently produced in three nonsubject countries: Belarus, Latvia, and the United Kingdom. Latvia apparently produces a lower silica product (94 percent) than the domestic industry (96 percent), and Belarus produces a higher silica product (98 percent). ASF imports from Belarus were excluded from the U.S. market by State Department sanctions until recently. CR at VII-7, PR at VII-4.

[71] CR at II-11-13, PR at II-8.

[72] CR/PR at Table II-4.

[73] CR at Table II-5.

[74] CR at II-15, PR at II-10.

[75] CR at II-16, PR at II-10.

competition between the subject imports and the domestic like product. We intend to explore each of these issues further in any final phase of these investigations.

First, a potentially large volume of sales are governed by laws that require U.S.-sourced products. Buy American and Berry Amendment provisions require that synthetic fabric purchased using funds made available by the Department of Defense be produced in the United States.[76] It is not clear to what extent these provisions are being applied to purchases by defense contractors as opposed to purchases made directly by the U.S. military. Additionally, it is unclear the extent to which the provisions apply to the *** percent of petitioner's sales during the POI that are described as military sales.[77]

Second, petitioner reports that two standards exist for industrial grade ASF, a military standard and an FM certification, and reports that users of ASF for non-military applications will sometimes request product meeting military specifications.[78] Respondent parties indicate that purchaser requests that industrial grade ASF meet FM standards are infrequent. The data on the record in the preliminary phase of these investigations show limited overlap between domestically produced ASF and the subject imports in terms of certification.[79] We intend to explore in any final phase of these investigations the extent to which certification or lack thereof affects substitutability.

Finally, respondents allege that the U.S. industry does not produce a high strength fabrication-grade ASF, which is produced by a Chinese producer from high silica content fiber that does not become as weakened during the leaching process as the fabric produced by the U.S. industry. They claim that this subject product is particularly superior to the domestic like product in applications that require fabric manipulation, such as production of protective garments.[80] In any final phase of these investigations, we intend to further investigate the demand for high strength ASF and the domestic industry's production capabilities.

Auburn uses *** as its major raw materials in the production of industrial grade ASF, and HITCO uses ***.[81] Domestic producers' unit cost of raw materials declined from $*** in 2013 to $*** in 2015.[82] Their cost of raw materials as a share of cost of goods sold ("COGS") increased from just under *** percent in 2013 to slightly more than *** percent in 2015.[83]

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[76] CR at II-13, PR at II-8-9. Buy American requirements apply to contracts below $150,000 and Berry Amendments provisions apply to contracts of $150,000 and above. Conference Transcript at 18 (Leonard). *Id.*

[77] CR at II-7, II-13, PR at II-5, 8-9. We invite parties in comments on draft questionnaires in any final phase of these investigations to address ways in which the Commission may collect data to determine the extent to which purchases, or sales made by U.S. producers and U.S. importers, are subject to these domestic preference programs.

[78] CR at II-13-14, PR at II-9. FM certification requires laboratory testing and is recognized by the world's leading regulatory authorities. Conference Transcript at 16-17, 52, 80-82 (Leonard, Van Atta).

[79] *See* CR/PR at Tables III-5, IV-4.

[80] AVS Postconference Brief at 2-3, Conference Transcript at 144-45 (Dill).

[81] CR/PR at V-1.

[82] CR/PR at Table VI-1.

[83] CR/PR at V-1.

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[84]

The volume of subject imports declined from *** kg in 2013 to *** kg in 2014 before increasing to *** kg in 2015.[85] The market share of subject imports increased between 2013 and 2015 as apparent U.S. consumption declined. Subject imports, after declining from *** percent of apparent U.S. consumption in 2013 to *** percent in 2014, increased to *** percent of apparent U.S. consumption in 2015, an increase of *** percentage points from 2013 to 2015.[86] Subject imports' gain in market share came largely at the expense of the domestic industry, which lost *** percentage points of market share from 2013 to 2015.[87] Subject imports also increased relative to U.S. production.[88] In light of the foregoing, we find that the volume of subject imports is significant both in absolute terms and relative to domestic consumption and production.

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether –

(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[89]

As addressed in section VI.B.3 above, the record indicates that there is a moderate degree of substitutability between subject imports and the domestic like product and that price is a moderately important consideration in purchasing decisions.

*** and three importers of subject merchandise provided usable data for two pricing products,[90] although not all firms reported pricing data for all products for all quarters.[91] The

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[84] 19 U.S.C. § 1677(7)(C)(i).

[85] CR/PR at Tables IV-2.

[86] CR/PR at Table IV-5.

[87] CR/PR at Table IV-5.

[88] The ratio of subject imports to domestic production, after declining from *** percent in 2013 to *** percent in 2014, increased to *** percent in 2015. CR/PR at Table IV-2.

[89] 19 U.S.C. § 1677(7)(C)(ii).

[90] CR at V-4, PR at V-2-3. Pricing product 1 is 18 ounce/yard^2 per MILC-24576. Product 2 is 36 ounce/yard^2 per MILC-24576. *Id.*

data show that subject imports undersold the domestic like product in all 24 quarterly comparisons, at margins ranging from 18.8 to 41.6 percent.[92] There were 2.4 million square yards of subject import shipments involved in these underselling comparisons.[93] For purposes of these preliminary determinations, we find that there has been significant underselling by the subject imports.[94]

We have also examined price trends. Prices for both domestically produced pricing products increased overall from January 2013 to December 2015. At the same time, prices for the subject imports declined, with prices for both pricing products declining overall from January 2013 to December 2015.[95] In light of the observed price increases for the domestic like product, we are unable to conclude on the current record that subject imports depressed prices for the domestic like product to a significant degree.

We have also considered whether subject imports prevented price increases, which otherwise would have occurred, to a significant degree during the POI. We are unable to conclude, in light of declining demand and relatively stable raw materials costs,[96] that prices for the domestic like product would have increased to a greater extent if not for the presence of subject imports.[97] We acknowledge that the domestic industry's ratio of COGS to net sales increased between 2013 and 2015, which occurred due to a decline in the average unit value ("AUV") of net sales while the industry's unit COGS remained steady.[98] Based on the record of the preliminary phase of these investigations, we cannot attribute the resulting cost-price squeeze to the subject imports in light of the fact that the AUV of net sales appears to have declined because of higher export shipments at increasingly low prices, not domestic sales.[99] Consequently, the record of the preliminary phase of these investigations does not indicate that

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[91] CR at V-4, PR at V-2-3. Reported pricing data accounted for approximately *** percent of the value of U.S. producers' U.S. shipments and *** percent of the value of U.S. shipments of subject imports from China in 2015. *Id.*

[92] CR/PR at Table V-6.

[93] CR/PR at Table V-6.

[94] ACIT argues that the large margins of underselling reflect differences between the domestic like product and subject imports and limits on competition between them. ACIT's Postconference Brief at 17-22. We will examine this issue further in any final phase of these investigations.

[95] *See* CR/PR at Tables V-3, V-4.

[96] CR/PR at Tables IV-5, VI-1.

[97] Based on the increases in unit COGS and the COGS/net sales ratio during the POI, Vice Chairman Pinkert finds evidence of price suppression.

[98] CR/PR at Table VI-1.

[99] As previously discussed, the prices for the two domestically produced pricing products increased during the POI. In addition, AUVs for U.S. shipments of the domestic like product were unchanged from 2013 to 2015, at $***. CR/PR at Table III-3. Similarly, unit values for the industry's raw materials and total COGS remained relatively steady during the POI. *See* CR/PR at Table VI-1. By contrast, AUVs for the domestic industry's export shipments declined from $*** in 2013 to $*** in 2015. CR/PR at Table III-3. As ***, the industry's ***. *Id.* We intend in any final phase of these investigations to explore further the extent to which subject imports may have contributed to the domestic industry's inability to increase prices.

subject imports prevented price increases that would have otherwise occurred to a significant degree.[100]

For purposes of these preliminary determinations, we find that there was significant underselling of the domestic like product by the subject imports, which had the effect of increasing the market share of the subject imports at the expense of the domestic industry.

E. Impact of the Subject Imports[101]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[102]

As discussed above, the domestic industry's market share, after increasing from *** percent in 2013 to *** percent in 2014, declined to *** percent in 2015.[103] Most other indicators of domestic industry's performance also suffered substantial declines from 2014 to 2015 and declined overall from 2013 to 2015.

The domestic industry's production, after increasing from *** kg in 2013 to *** kg in 2014, declined to *** kg in 2015.[104] Its capacity increased from *** kg in 2013 to *** kg in 2014, then declined to *** kg in 2015, while its capacity utilization declined from *** percent in 2013 to *** percent in 2014 and *** percent in 2015.[105] The domestic industry's U.S. shipments declined from *** kg in 2013 to *** kg in 2014 and *** kg in 2015.[106] Ending

[100] We have also considered whether the domestic industry lost sales and revenues to subject imports. Petitioner reported lost sales to purchaser ***. Although ***. CR at V-10-11, PR at V-5. We will seek further information concerning the circumstances surrounding these lost sales allegations in any final phase of these investigations.

[101] Commerce initiated the antidumping duty investigation of ASF from China based on an estimated antidumping duty margin of 160.28 percent. 81 Fed. Reg. 8913, 8916 (Feb. 23, 2016). It initiated the countervailing duty investigation based on 19 alleged countervailable subsidy programs, at least four of which concern exports. 81 Fed. Reg. 8909 (Fed. 23, 2016); *see also* Enforcement and Compliance Office of AD/CVD Operations CVD Investigation Initiation Checklist (Feb. 16, 2016) (U.S. Dept. Commerce). Commerce did not furnish an estimated subsidy rate in its notice of initiation.

[102] 19 U.S.C. § 1677(7)(C)(iii). This provision was recently amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[103] CR/PR at Table IV-5.

[104] CR/PR at Table III-2.

[105] CR/PR at Table III-2.

[106] CR/PR at Table III-3.

inventories, after increasing from *** kg in 2013 to *** kg in 2014, declined to *** kg in 2015.[107]

Employment-related data showed mixed trends. The number of production and related workers ("PRWs"), total hours worked, and productivity declined, and hourly wages and unit labor costs increased.[108]

From 2013 to 2015, the domestic industry's unit net sales value and total net sales revenues declined.[109] The industry's gross profit, operating income, and net income all declined during this period, with the principal declines taking place from 2014 to 2015 as the domestic industry lost market share. Operating income and net income were *** throughout the period.[110] The industry's operating income as a share of net sales also declined *** from 2014 to 2015 and overall from 2013 to 2015.[111] The industry's capital expenditures declined from 2013 to 2015.[112]

For purposes of these preliminary determinations, we find that subject imports had a significant impact on the domestic industry. The market share of subject imports was significant and increased during the POI, and in 2015 subject imports gained market share at the expense of the domestic industry. Declines in the domestic industry's performance were particularly intense when subject import market share rose in 2015. As a result of lost market share, the domestic industry's output, revenues, and employment were lower than they would have been otherwise. The lower revenues, in turn, resulted in reduced gross profits and may have contributed to declines in its *** operating margin during 2015.

Respondents claim that there is no causal link between subject imports and negative effects on the domestic industry because subject imports increased during 2014 when the domestic industry's condition improved and declined during the latter portion of 2015.[113]

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[107] CR/PR at Table III-6.

[108] The domestic industry's number of PRWs declined from *** in 2013 to *** in 2014 and *** in 2015. Total hours worked, after increasing from *** hours in 2013 to *** hours in 2014, declined to *** hours in 2015. Hours worked per PRW, after increasing from *** in 2013 to *** in 2014, declined to *** in 2014. Hourly wages increased from $*** in 2013 to $*** in 2014 and $*** in 2015. Productivity declined from *** kg per hour in 2013 and 2014 to *** kg per hour in 2015. Unit labor costs increased from $*** per kg in 2013 to $*** per kg in 2014 and $*** per kg in 2015. CR/PR at Table III-7. HITCO ***, so the totals may be overstated. CR at III-9, PR at III-3.

[109] The domestic industry's total net sales declined from $*** in 2013 to $*** in 2014 and $*** in 2014. CR/PR at Table IV-1. Its average unit net sales value declined from $*** in 2013 to $*** in 2014 and $*** in 2015. *Id.* As discussed above, the decline in the domestic industry's net sales values was driven in part by ***.

[110] Gross profit declined from $*** in 2013 to $*** in 2014 and $*** in 2015. Operating income, after improving from *** in 2013 to *** in 2014, declined to *** in 2015. Similarly, net income, after improving from *** in 2013 to *** in 2014, declined to *** in 2015. CR/PR at Table VI-1.

[111] The domestic industry's operating income as a share of net sales, after improving from *** percent in 2013 to *** percent in 2014, declined to *** percent in 2015. CR/PR at Table VI-1.

[112] The domestic industry's capital expenditures, after increasing from $*** in 2013 to $*** in 2014, declined to $*** in 2015. CR/PR at Table VI-4. The industry's *** research and development expenses declined from $*** in 2013 to $*** in 2014 and to $*** in 2015. *Id.*

[113] *E.g.*, ACIT's Postconference Brief at 13.

Respondents' argument focuses on changes in absolute subject import volume and overlooks changes in market share that occurred as apparent U.S. consumption declined. As discussed above, changes in the domestic industry's performance correlate with changes in its market share. Specifically, while the domestic industry lost market share to the subject imports in 2015, its output and employment declined and it lost revenues that it otherwise would have obtained.

We have examined the decline in apparent U.S. consumption as an alternative cause of the domestic industry's injury and, based on the record in the preliminary phase of these investigations, find that this decline does not explain the industry's loss of market share. Thus, the injury we have attributed to subject imports is distinguishable from any difficulties the domestic industry may have experienced due to declining demand. We will explore further in any final phase of these investigations the extent to which demand declines were due to declines in portions of the market that are supplied exclusively by the domestic industry under the Buy American and Berry Amendment provisions or due to shifts of demand from ASF to out-of-scope mid-silica fabric.

Finally, the current record indicates that nonsubject imports did not enter the U.S. market in appreciable quantities during the POI.[114] Therefore, nonsubject imports are not an alternative cause of the injury we attribute to subject imports. As indicated above, we intend in any final phase of these investigations to obtain additional information about the presence of nonsubject imports in the U.S. market.

VI. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports of ASF from China that are allegedly sold in the United States at less than fair value and that are allegedly subsidized by the government of China.

[114] *See* CR/PR at Table IV-5.

PART I: INTRODUCTION

BACKGROUND

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Auburn Manufacturing, Inc. ("AMI"), Mechanic Falls, Maine, on January 20, 2016, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of certain amorphous silica fabric ("ASF") [1] from China. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
January 20, 2016	Petitions filed with Commerce and the Commission; institution of Commission's investigations (81 FR 4335, January 26, 2016)
February 10, 2016	Commission's conference
February 16, 2016	Commerce's notice of initiation CVD (81 FR 8909, February 23, 2016) and AD (81 FR 8913, February 23, 2106)
March 4, 2016	Commission's vote
March 7, 2016	Commission's determinations
March 14, 2016	Commission's views

[1] See the section entitled "The Subject Merchandise" in *Part I* of this report for a complete description of the merchandise subject to these investigations.

[2] Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission's website (www.usitc.gov).

[3] A list of witnesses appearing at the conference is presented in appendix B of this report.

STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission—

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--[4]

> *In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.. . .In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether. . .(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.. . . In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to. . . (I) actual and potential decline in output, sales, market share, gross profits, operating profits, net profits, ability to service debt, productivity, return on investments, return on assets, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the*

[4] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in {an antidumping investigation}, the magnitude of the margin of dumping.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—[5]

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

Organization of report

Part I of this report presents information on the subject merchandise, alleged subsidy and dumping margins, and domestic like product. *Part II* of this report presents information on conditions of competition and other relevant economic factors. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. *Parts IV* and *V* present the volume of subject imports and pricing of domestic and imported products, respectively. *Part VI* presents information on the financial experience of U.S. producers. *Part VII* presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

MARKET SUMMARY

ASF is generally used for shields against heat, sparks, and molten metal splash, particularly in welding applications. The two known U.S. producers of ASF are Auburn Manufacturing, Inc. ("AMI") and HITCO Carbon Composites, Inc. ("HITCO"). The leading producers of ASF outside the United States include ACIT (Pinghu), Huatek New Material Inc., and NanJing Tianyuan Fiberglass Material Co., Ltd. of China. The leading U.S. importers of ASF from China are ***. *** reported imports from Latvia.

Apparent U.S. consumption of ASF totaled approximately *** in 2015. U.S. producers' U.S. shipments of ASF totaled *** in 2015, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from subject sources totaled *** in 2015 and accounted for*** percent of apparent U.S. consumption by quantity and *** percent by value. There were no reported U.S. imports from nonsubject sources in 2015.

[5] Amended by PL 11s-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in these investigations are presented in appendix C, table C-1. Except as noted, U.S. industry data are based on questionnaire responses of two firms that accounted for all U.S. production of ASF during 2015. U.S. imports are based on questionnaire responses.

PREVIOUS AND RELATED INVESTIGATIONS

On October 27, 1986, an antidumping petition was filed against certain ASF from Japan. On July 27, 1987, Commerce determined that certain ASF from Japan was dumped.[6] The Commission issued an affirmative material injury determination in September 1987.[7] Commerce then issued an antidumping duty order.[8] Finally, the antidumping duty order on certain ASF from Japan was revoked on November 14, 1995.[9] The article subject to investigation in that proceeding was defined as "commercial grade woven fabric of glass (silica filaments), whether or not colored, containing not over 17 percent of wool by weight." Commerce included only "commercial" grade ASF (i.e., what is now described in the industry as "industrial" grade ASF) in the scope of its investigation and the Commission found that the domestic like product included only commercial grade (i.e., what is now known as "industrial" grade) ASF.

NATURE AND EXTENT OF ALLEGED SUBSIDIES AND SALES AT LTFV

Alleged subsidies

On February 23, 2016, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigation on ASF from China.[10] Commerce identified the following government programs in China:

- **Loan programs:** includes *Policy Loans to the Silica Fabric Industry*; *Preferential Export Financing*; *Preferential Loans to SOEs*; *Export Sellers' Credit*; *Export Buyer's Credit*; and *Export Credit Insurance Subsidies*;

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[6] *Final Determination of Sales at Less Than Fair Value: Amophous {sic} Silica Filament Fabric From Japan*, 52 FR 28033, July 27, 1987.

[7] *Certain Silica Filament Fabric from Japan*, *Inv. No. 731-TA-355*, USITC Publication 2015, September 1987.

[8] *Antidumping Duty Order: Amorphous Silica Filament Fabric from Japan*, 52 FR 35750, September 23, 1987.

[9] *Amorphous Silica Filament Fabric from Japan, Revocation of the Antidumping Duty Order*, 60 FR 57217, November 14, 1995.

[10] *Certain Amorphous Silica Fabric from the People's Republic of China: Initiation of Countervailing Duty Investigation*, 81 FR 8909, February 23, 2016.

- **Government Provision of Goods and Services for Less Than Adequate Remuneration (LTAR):** includes *Government Provision of Land for Less Than Adequate Remuneration in Special Economic Zones*; *Government Provision of Fiberglass Yarn for Less Than Adequate Remuneration*; *Provision of Electricity for Less Than Adequate Remuneration*; and *Provision of Additional Services at Less Than Adequate Remuneration through Demonstration Bases and Common Service Platform Programs;*

- **Tax Programs:** includes *Income Tax Reduction for High or New Technology Enterprises*; *Income Tax Deductions for Research and Development Expenses Under the Enterprise Income Tax Law*; *Income Tax Reductions and Exemptions for HNTEs Based on Geographic Location*; *Import Tariff and VAT Exemptions on Imported Equipment in Encouraged Industries*; and *City Construction Tax and Education Fees Exemptions for FIEs*; Other VAT Subsidies;

- **Grant Programs:** includes *GOC and Sub-Central Government Subsidies for the Development of Famous Brands and China World Top Brands*; *GOC and Sub-Central Government Subsidies for the Development of Famous Brands and China World Top Brands*; *Science & Technology Awards*;

Alleged sales at LTFV

On February 23, 2016, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on ASF from China.[11] Commerce has initiated antidumping duty investigation based on estimated dumping margins of 160.28 percent for ASF from China.

THE SUBJECT MERCHANDISE

Commerce's scope

Commerce has defined the scope of this investigation as follows:[12]

> *The product covered by these investigations is woven (whether from yarns or rovings) industrial grade amorphous silica fabric, which contains a minimum of 90 percent silica (SiO^2) by nominal weight, and a nominal width in excess of 8 inches. The investigation covers industrial grade amorphous silica fabric regardless of other materials contained in the*

[11] *Certain Amorphous Silica Fabric from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 81 FR 8913, February 23, 2016.

[12] *Certain Amorphous Silica Fabric from the People's Republic of China: Initiation of Countervailing Duty Investigation*, 81 FR 8909, February 23, 2016.

fabric, regardless of whether in roll form or cut-to-length, regardless of weight, width (except as noted above), or length. The investigation covers industrial grade amorphous silica fabric regardless of whether the product is approved by a standards testing body (such as being Factory Mutual (FM) Approved), or regardless of whether it meets any governmental specification.

Industrial grade amorphous silica fabric may be produced in various colors. The investigation covers industrial grade amorphous silica fabric regardless of whether the fabric is colored. Industrial grade amorphous silica fabric may be coated or treated with materials that include, but are not limited to, oils, vermiculite, acrylic latex compound, silicone, aluminized polyester (Mylar®) film, pressure-sensitive adhesive, or other coatings and treatments. The investigation covers industrial grade amorphous silica fabric regardless of whether the fabric is coated or treated, and regardless of coating or treatment weight as a percentage of total product weight. Industrial grade amorphous silica fabric may be heat-cleaned. The investigation covers industrial grade amorphous silica fabric regardless of whether the fabric is heat-cleaned.

Industrial grade amorphous silica fabric may be imported in rolls or may be cut-to-length and then further fabricated to make welding curtains, welding blankets, welding pads, fire blankets, fire pads, or fire screens. Regardless of the name, all industrial grade amorphous silica fabric that has been further cut-to-length or cut-to-width or further finished by finishing the edges and/or adding grommets, is included within the scope of this investigation.

Subject merchandise also includes (1) any industrial grade amorphous silica fabric that has been converted into industrial grade amorphous silica fabric in China from fiberglass cloth produced in a third country; and (2) any industrial grade amorphous silica fabric that has been further processed in a third country prior to export to the United States, including but not limited to treating, coating, slitting, cutting to length, cutting to width, finishing the edges, adding grommets, or any other processing that would not otherwise remove the merchandise from the scope of the investigation if performed in the country of manufacture of the in-scope industrial grade amorphous silica fabric.

Excluded from the scope of the investigation is amorphous silica fabric that is subjected to controlled shrinkage, which is also called "pre-shrunk" or "aerospace grade" amorphous silica fabric. In order to be excluded as a pre-shrunk or aerospace grade amorphous silica fabric, the amorphous silica fabric must meet the following exclusion criteria: (l) the amorphous

silica fabric must contain a minimum of 98 percent silica (SiO^2) by nominal weight; (2) the amorphous silica fabric must have an areal shrinkage of 4 percent or less; (3) the amorphous silica fabric must contain no coatings or treatments; and (4) the amorphous silica fabric must be white in color. For purposes of this scope, "areal shrinkage" refers to the extent to which a specimen of amorphous silica fabric shrinks while subjected to heating at 1800 degrees F for 30 minutes.[13]

Also excluded from the scope are amorphous silica fabric rope and tubing (or sleeving). Amorphous silica fabric rope is a knitted or braided product made from amorphous silica yarns. Silica tubing (or sleeving) is braided into a hollow sleeve from amorphous silica yarns.

The subject imports are normally classified in subheadings 7019.59.4021, 7019.59.4096, 7019.59.9021, and 7019.59.9096 of the Harmonized Tariff Schedule of the United States (HTSUS), but may also enter under HTSUS subheadings 7019.40.4030, 7019.40.4060, 7019.40.9030, 7019.40.9060, 7019.51.9010, 7019.51.9090, 7019.52.9010, 7019.52.9021, 7019.52.9096 and 7019.90.1000. HTSUS subheadings are provided for convenience and customs purposes only; the written description of the scope of this investigation is dispositive.

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations is normally imported under statistical reporting numbers 7019.59.4021, 7019.59.4096, 7019.59.9021, and 7019.59.9096 of the Harmonized Tariff Schedule of the United States (HTS), but may also be reported under HTS 7019.90.1000 or 7019.90.5050.[14] General duty rates for the applicable tariff rate lines range from 4.3 percent to 7.3 percent ad valorem. All of the cited HTS provisions are broader or residual ("basket") categories that include nonsubject U.S. imports.

[13] Areal shrinkage is expressed as the following percentage:

$$\frac{\text{Fired Area, cm}^2 - \text{Initial Area, cm}^2}{\text{Initial Area, cm}^2} \times 100 = \text{Areal Shrinkage, \%}$$

[14] The respondents noted other HTS statistical reporting numbers during the staff conference that they claim are more relevant to these investigations. The two numbers provided were HTS 7019.40.4030 (other woven fabrics of glass rovings of uncolored filaments with a silica content greater than 93 percent) and HTS 7019.40.9030 (other woven fabrics of glass rovings of colored filaments with a silica content greater than 93 percent). Conference transcript, p. 94 (Knapp). These two HTS line items have applied ad valorem duty rates of 7.3 percent and 7.0 percent respectively.

THE PRODUCT

Description and applications

Industrial grade ASF is a woven textile product composed of numerous fine, discrete silica strands and is principally used for welding protection. The domestically produced form typically contains a minimum of 96 percent silica, which is in the "amorphous," or noncrystalline, state, but may range as low as 90 percent silica.[15] There is no known U.S. production of ASF in the lower portion of this range.[16]

Industrial grade ASF possesses a combination of chemical and physical properties, including thermal survivability, low thermal conductivity, chemical non-reactivity, flexibility, strength, abrasion resistance, and ease of handling. These properties make it useful in a number of industrial applications, especially to insulate and resist extreme heat.

The thermal insulation characteristics of industrial grade ASF cover a wide range of temperatures. Specifically, industrial grade ASF is capable of withstanding heat up to 1,800 degrees Fahrenheit without sacrificing any of its other properties and will remain in usable cloth form up to approximately 2,300 degrees F, albeit with some loss of flexibility. Industrial grade ASF will continue to provide some protection up to its melting point over 3,000 degrees F.

Most industrial grade ASF is manufactured in two weights, lightweight (i.e., 18 ounces per square yard) and heavyweight (i.e., 36 ounces per square yard),[17] but may also include a medium weight (i.e., 24 ounces per square yard), a very light weight (12 ounces per square yard) or even a very heavyweight (40 ounces per square yard).[18] There are also a number of topical coatings and treatments that may be requested by the customer to enhance the product's characteristics for specialized uses and provide water or grease repellency.[19] These coatings include, but are not limited to, neoprene or silicone for water repellency and greater abrasion resistance, chrome compounds to maintain flexibility at particularly high temperatures, and aluminizing to increase heat reflectivity.

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[15] Importer *** imports mid-silica fabric with silica contents of 80 percent and ASF with silica contents of 96 percent and 98.5 percent. To the best of AMI's knowledge, mid-silica fabric with a silica content of 80 percent, however, would not provide effective temperature resistance for known applications of industrial grade ASF. The Chinese producer MOWCO Industry Limited produces a high temperature ASF that has a minimum silica content of 94 percent and Eastern European, principally Latvian, ASF is produced with a silica content of 94 percent. Petition, p. 13 and Conference transcript, p. 106 (Ao) and p. 138 (Grimson). However, respondent parties note a market for product with silica contents lower than 90 percent. Conference transcript, pp. 144-143 (Dill).

[16] Similarly, there is no known U.S. production of mid-silica fabric, comprising fabric with silica contents between 70-93 percent. Conference transcript, p. 133 (Ao).

[17] 18 ounce and 36 ounce ASF are the two military standard weights and therefore the most commonly produced. Conference transcript, p. 52 (Van Atta).

[18] Conference transcript, p. 73 (Leonard).

[19] Conference transcript, p. 64 (Van Atta).

Industrial grade ASF is made predominantly in 36-inch and 60-inch widths, but may also be produced in other widths. Industrial grade ASF is used to insulate and to resist extreme heat so as to conserve energy and protect people, materials, and machinery from potential injury or damage. Some specific applications of industrial grade ASF are as shields for ducting and pipes, as protection from sparks and molten metal splash, as insulating blankets in heat-treating and high-temperature processing operations, and as refractory lining and furnace curtains.

Amorphous silica yarns may also be knitted or braided into nonsubject rope, tubing, and tape, or be woven into nonsubject aerospace grade ASF. ASF rope, tubing, and tape use a larger-diameter, heavier-weight texturized yarn than industrial grade ASF, which is woven with smaller diameter, lighter-weight yarns. Additionally, rope and tubing are round (as opposed to flat like the subject merchandise) and ASF tape is generally woven thicker than industrial grade ASF cloth.

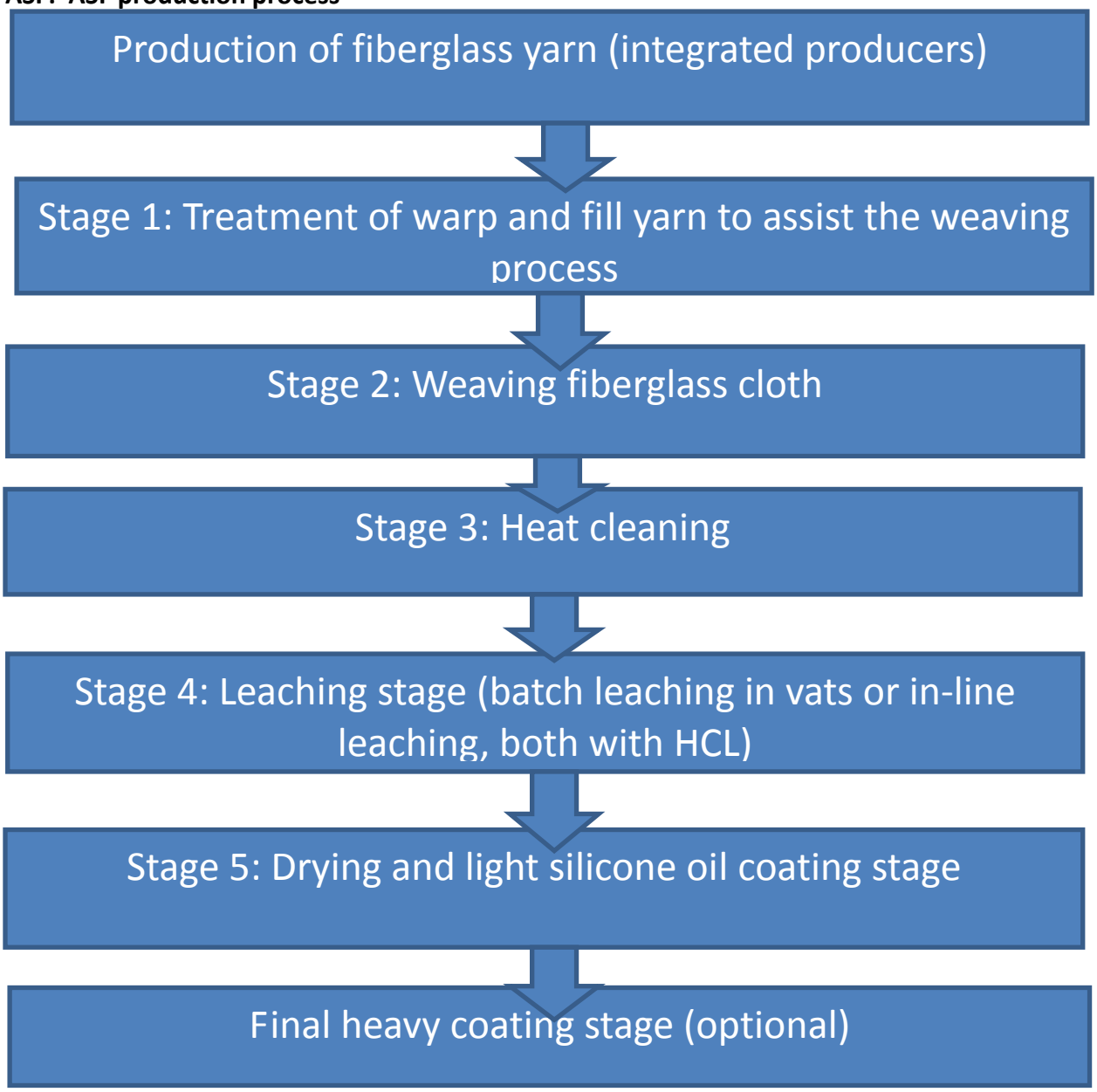
Aerospace grade ASF shares some properties and production processes with industrial grade ASF. However, aerospace grade ASF undergoes an additional heat treatment process to limit its areal shrinkage to 4 percent or less (compared to industrial grade ASF, which has residual shrinkage of 14-16 percent). In addition, aerospace grade ASF has a minimum silica content of 98 percent, compared to industrial grade ASF which has a range of 90-96 percent silica. Finally, aerospace grade ASF typically has much lower breaking strength and abrasion resistance results than industrial grade ASF because of the elevated thermal exposure required to pre-shrink ASF and the absence of a binder or coating in the final product.

Manufacturing processes

There are five major processing steps involved in the production of the basic industrial grade ASF for most producers, who are likely to begin with fiberglass yarn or sometimes fiberglass fabric. However, it is possible that there may be an integrated producer in China whose production process begins with the production of fiberglass yarn. Figure I-1 presents the ASF production process.

An integrated producer of ASF must first make fiberglass yarn. The manufacturing process for glass fibers suitable for reinforcement uses large furnaces to gradually melt silica sand, limestone, kaolin clay, fluorspar, colemanite, dolomite, boron, and other minerals to liquid form. It is then extruded through titanium bushings to produce fiberglass filaments. These filaments are then sized (i.e., coated) with a chemical solution. The individual filaments are bundled in large numbers to provide a twisted yarn (i.e., a soft strand of fiber that has been twisted, attenuated, and freed of foreign matter preparatory to its conversion into yarn). The diameter of the filaments, and the number of filaments in the yarn, determine its weight, typically expressed in one of two measurement systems (i.e., tex or cotton count). Fiberglass can then be formed into yarn much like wool or cotton.

Figure I-1
ASF: ASF production process



For non-integrated producers, which include the vast majority of Chinese ASF manufacturers, the following is a description of each stage of production.

Yarn preparation: Before the yarn can be woven, it must be prepared through various processes. Warp yarn used in the weaving process is first treated with a finish to facilitate the weaving process. It is then plied with like-size yarns and then wound onto large stainless steel beams with the precise number of yarns required to weave a specific weight and width of fiberglass fabric or it can remain on the individual spools to be run from a creel[20] during weaving. Fill (or weft) yarn may also be plied, and then wound onto plastic bobbins. These bobbins are fed into the loom from the side.

Another yarn preparation process is called "texturizing." This process injects air into a plied yarn bundle, breaking various yarn strands, and thereby increasing the yarn diameter. These yarns are also treated with a finish to facilitate the weaving process. Texturized yarns are then either wound onto beams or bobbins.

Weaving: Weaving occurs by means of automated looms. The yarn fed into the weaving process may be pulled from one of several different sources. Specifically, yarn may be drawn from bobbins on creels. Alternatively, warp yarn may be drawn from sectional beams (AMI uses four), with one bobbin to string a strand of weft or fill yarn cross-sectionally. Finally, warp yarn may be drawn from a warp beam, similarly with one bobbin used to string a strand of weft or fill yarn cross-sectionally. The cloth may be woven in various patterns, and may be woven to different widths. Standard widths are 60 inches and 36 inches and most of the material produced by AMI is 36 inches wide. The cloth is woven with a selvage edge to prevent fraying. Beyond the selvage are ends of fill yarns that must be trimmed. The edge trimming, according to the petitioner, has no scrap value and therefore is treated as waste material. The finished cloth is wound onto a cardboard core, and then cut, for heat cleaning, the next processing stage. The woven cloth at this stage is white.[21]

Heat cleaning: At the heat cleaning stage, the cloth is unwound and run through a heat-cleaning oven at a temperature of approximately 1,300 degrees Fahrenheit. Through the heat cleaning process, the starches and oils present on the cloth are removed.[22] The cloth is rewound at the end of this stage, using a specifically designed PVC core containing holes. After finishing this process, the woven cloth is a light brown color. AMI believes that it is possible that some Chinese producers may forego this stage in the production process. In order to achieve the same visual effect, producers not engaging in heat cleaning may instead coat the cloth in a vermiculite solution.

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[20] A creel is a rack of bobbins from which the desired number of fiberglass filaments can unwind simultaneously for weaving.

[21] While it is possible that some Chinese producers may not perform the weaving process (that is, their production may begin with the woven fiberglass cloth), AMI believes that the largest exporters are most likely also engaging in weaving. Petition, p. 16.

[22] These starches and oils are present on the fiberglass yarn in order to facilitate the weaving process. However, after the yarn has been turned into cloth, these starches and oils are no longer necessary, and can detract from the performance of the finished product, due to smoke evolution at operating temperatures. Petition, p. 16.

Leaching: After heat cleaning, the spool of cloth is taken to the hydrochloric acid ("HCL") vats in the batch leaching process. The spools are attached by the PVC core to a batch-dip platform that normally holds 8 spools of 36"-wide fabric. Then, the platform is submerged into an HCL bath containing an HCL solution of between 15 and 17 percent. The HCL is heated to a temperature of approximately 120 degrees Fahrenheit. The HCL solution is also pumped into the PVC core to ensure that the entirety of the spool is leached evenly. The leaching process takes approximately seven hours, with the total time dictated by the nature of the chemical processes that take place.

AMI notes that while it uses a batch process to leach its woven cloth, ***,[23] it is also possible to leach the woven cloth through an in-line process.[24] As stated above, batch leaching is performed by submerging spools of ASF in a static bath of HCL, while in-line leaching is a continuous, open roll process through the HCL. Regardless, as stated, the chemical process involved dictates that the material spends approximately seven hours in the HCL solution to become 96 percent silica fabric. In terms of HCL usage, AMI believes that the in-line leaching process is likely to be less efficient as compared to the batch process, requiring more water and HCL to achieve 96 percent silica ASF.[25] Prior to leaching, the woven cloth is approximately 55 percent silica.[26] After the leaching process, the silica content typically can be 93 percent or higher, with most industrial grade ASF containing at least 96 percent silica.[27] Less time spent leaching will lead to a lower percent silica content, but a stronger product.[28]

Prior to removing the material from the HCL vats, the spools are rinsed with water to remove the HCL. The leaching process involves storage of HCL in three separate tanks: (1) an HCL storage tank; (2) a neutralization tank; and (3) an acidic rinse water tank. In order to comply with environmental regulations, the production process at AMI incorporates a processing step at which the water is neutralized by the addition of lime prior to disposal.

Coating and drying: After the spools are removed from the leaching bath, they are unspooled and run through a drying and coating machine. At this stage, the product is dried through contact with a series of steam-heated cylindrical metal "cans." Next, the cloth runs through a trough containing an acrylic latex compound solution, which contains silicone oil. The silicone oil is applied to lubricate the material in order to prevent breakage. While AMI applies this light silicone oil coating by dipping, alternative techniques for applying the light silicone oil coating could include spraying or "kiss-rolling," in which one side of the cloth runs over the surface of the silicone oil liquid (i.e., the cloth "kisses" the surface).

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[23] *Certain Silica Filament Fabric from Japan*, Inv. No. 731-TA-355, August, 1987, A-7.

[24] According to the respondent, there are two known Chinese ASF manufacturers that use an in-line leaching process. While faster and less costly, this process is more difficult to control and results in product with a silica content range from 70 to 93 percent. Conference transcript, pp. 133-134 (Ao).

[25] Conference transcript, p. 66 (Van Atta).

[26] AMI notes that the fiberglass yarn it purchases is normally approximately 55 percent silica. However, fiberglass yarn may range from about 50-55 percent silica.

[27] AMI's ASF product is generally 96 percent silica.

[28] Conference transcript, p. 123 (Sydow).

AMI notes that the abrasion resistant ("AR") version of industrial grade ASF achieves its defining character by undergoing a second pass through the drying/coating stage, in which a heavier silicone oil coating is applied. Moreover, the AR products are often tinted a different color, which is achieved by adding a dye into the dip for the second pass. This is done to be able to differentiate easily the AR product.

ASF products are digitally printed or stenciled in accordance with military specifications, or with the proper FM approvals markings, as described in the "Final Coatings" section below.

Final coatings: Industrial grade ASF may be finished after stage five. However, if the production order demands the application of a final coating, then the material must undergo an additional production step. Final coatings that may be applied to ASF include silicone, aluminum foil, and pressure-sensitive adhesive ("PSA"). The silicone coating used for the final coating process is not to be confused with the light silicone oil treatment at the previous stage. Rather, the silicone applied in this final coating stage is a highly viscous material that is applied to the surface of the cloth, after which the coated material is run through an oven to cure the material. Pigments are added to the silicone coating prior to application to the cloth, to achieve the final color. Industrial grade ASF may be silicone-coated on either one or both sides.

PSA may also be applied to industrial grade ASF, in order to firmly affix the final product to a surface. PSA is only applied on one side. Finally, aluminum foil may be applied on one side of the industrial grade ASF.[29]

Labeling/packaging: After industrial grade ASF is manufactured, it is labeled and packaged for shipment. Industrial grade ASF is generally sold in rolls but may be referred to as cut-to-length if the fabric has been shortened from its original length after weaving.[30] Standard packaging includes spooling the finished product onto a cardboard core; wrapping the spool in bubble wrap, covering that with Kraft paper, and then binding the spool with three plastic binding strips. The product is then placed in a cardboard box, which also includes cardboard filler at each end of the box. Boxes of the standard 36 inch product, usually are loaded 12 per pallet. AMI notes that the finished product generally would not simply be stacked, without packaging, into a container, because the finished fabric would likely be damaged during transit.[31]

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[29] While aluminum foil can theoretically be applied on both sides of the cloth, AMI believes there is no current application for industrial grade ASF that would require that the product contain aluminum foil on both sides. Nevertheless, should one arise, AMI has the technical capability to produce industrial grade ASF with foil on both sides.

[30] For example, *** Staff telephone interview with ***.

[31] The surface of industrial grade ASF generally is highly susceptible to significant marring through casual contact. It is for this reason that the finished spools are bubble-wrapped, covered in Kraft paper, and individually boxed.

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product have been raised in these investigations. Respondent ACIT takes the definition of the domestic like product in the petition "on its face," but "reserves the right to comment further on the domestic like product during the final phase of the investigation."[32] Respondent AVS does not address the domestic like product directly, but does question the lower bound silica limit of 90 percent, in light of the higher silica content of U.S. suppliers and suppliers from nonsubject countries.[33] Petitioner AMI reiterates its support for a single domestic like product, industrial grade ASF, co-extensive with the scope and distinct from both aerospace grade ASF and mid-silica fabrics.[34]

[32] ACIT's postconference brief, p. 2.
[33] AVS's postconference brief, p. 2.
[34] AMI's postconference brief, pp. 2-10.

PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

U.S. MARKET CHARACTERISTICS

ASF is primarily used as a heat shield/protection in welding, particularly in industrial sectors such as shipbuilding and repair and oil and gas. Other uses include refractory linings, furnace curtains, and covers for ducts and pipes.[1] Apparent U.S. consumption of ASF decreased during 2013-15 by nearly *** percent.

CHANNELS OF DISTRIBUTION

U.S. producers sold primarily to end users while importers sold mostly to distributors, as shown in table II-1. ***.

Table II-1
ASF: U.S. producers' and importers' U.S. commercial shipments, by sources and channels of distribution, 2013-15

* * * * * * *

GEOGRAPHIC DISTRIBUTION

*** at least three of the six responding importers reported selling ASF to all regions in the contiguous United States (table II-2). For U.S. producers, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold *** percent within 100 miles of their U.S. point of shipment, *** percent between 101 and 1,000 miles, and *** percent over 1,000 miles.

[1] Conference transcript, pp. 33-34 (Ferrin).

Table II-2
ASF: Geographic market areas in the United States served by U.S. producers and importers

Region	U.S. producers	Importers
Northeast	***	4
Midwest	***	4
Southeast	***	6
Central Southwest	***	4
Mountain	***	3
Pacific Coast	***	5
Other[1]	***	0
All regions (except Other)	***	3
Reporting firms	***	6

[1] All other U.S. markets, including AK, HI, PR, and VI.

Source: Compiled from data submitted in response to Commission questionnaires.

SUPPLY AND DEMAND CONSIDERATIONS

U.S. supply

Domestic production

Based on available information, U.S. producers of ASF have the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced ASF to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the low and falling capacity utilization, production of other products on the same equipment as ASF, and the existence of alternate markets, though constrained somewhat by limited inventories.

Industry capacity

Domestic capacity increased from *** kilograms in 2013 to *** kilograms in 2014 and then decreased to *** kilograms in 2015. Capacity utilization decreased from *** percent in 2013 to *** percent in 2015. This low level of capacity utilization in 2015 suggests that U.S. producers may have substantial ability to increase production of product in response to an increase in prices. Staff notes, however, that the capacity reportedly available to U.S. producers is disproportionally ***'s.[2]

[2] ***.

Alternative markets

U.S. producers' exports, as a percentage of total shipments, increased from *** percent of total shipments in 2013 to *** percent in 2015. This increase indicates that U.S. producers may have some ability to shift shipments between the U.S. market and other markets in response to price changes.

Inventory levels

U.S. producers' inventories declined irregularly from *** percent of total shipments in 2013 to *** percent in 2015. These inventory levels suggest that U.S. producers may have limited ability to respond to changes in demand with changes in the quantity shipped from inventories.

Production alternatives

*** responding U.S. producers stated that *** could switch production from ASF to other products. ***. Alternate products accounted for between *** in 2013-15. Capacity utilization on shared equipment decreased from *** percent in 2013 to *** percent in 2015.[3]

Supply constraints

***. ***.

Subject imports from China[4]

Based on available information, producers of ASF from China have the ability to respond to changes in demand with moderate changes in the quantity of shipments of ASF to the U.S. market. The main contributing factors limiting responsiveness of supply are moderately high capacity utilization, some available inventories, and moderate shipments to other countries.

Industry capacity

Chinese capacity decreased from *** kilograms to *** kilograms from 2013 to 2015, ***.[5] Production of Chinese ASF decreased from *** kilograms in 2013 to *** kilograms in 2015. Capacity utilization fluctuated from *** percent in 2013 to *** percent in 2014 and ***

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[3] The vast majority of ***'s shared production equipment is used to produce ***, while the majority of ***.

[4] The Commission received four questionnaire responses from Chinese producers. The exports of these firms accounted for *** percent of imports of ASF from China in 2015.

[5] ***.

percent in 2015. These capacity utilization rates indicate that Chinese producers may have some ability to increase shipments to the United States in response to an increase in prices.

Alternative markets

Chinese exports to countries other than the United States increased between 2013 and 2015 from *** percent of total shipments in 2013 to *** percent in 2015. The fairly large share of Chinese ASF exported to other markets may allow Chinese producers to increase shipments to the United States.

Inventory levels

Chinese producers' inventories decreased irregularly from *** percent of total shipments in 2013 to *** percent in 2015. This moderate level of inventories may provide Chinese producers with some ability to increases shipments from inventories.

Production alternatives

Two of four responding Chinese producers reported producing other products with the same equipment, machinery, and workers that they used for ASF. Volume of production of these other products is *** on shared equipment. As a result there may be very limited ability to shift production on the same equipment.

Supply constraints

All four responding Chinese producers reported supply constraints including: pickling capacity, machine capacity, and the number of qualified workers.

Nonsubject imports[6]

AMI reports that ASF is produced in nonsubject countries Belarus, Latvia, and the United Kingdom.[7] Imports of ASF from Belarus have been blocked because of State Department sanctions for most of 2013-15.[8] Respondents agree that ASF is also produced in nonsubject countries Latvia and Belarus and report that ASF from these countries competes with imports from China[9] and that increases in imports from China have been offset by reductions in imports from Latvia.[10]

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[6] Since the HTS provisions that include ASF are mixed categories, it is not possible to use these data to determine with accuracy the amount and source of nonsubject imports.

[7] Conference transcript, p. 66 (Leonard).

[8] Conference transcript, pp. 76-77 (Leonard).

[9] Conference transcript, pp. 145-146 (Knapp).

[10] Respondent's postconference brief, p. 16.

U.S. demand

Based on available information, demand for the ASF sold by U.S. producers is likely to experience small changes in response to changes in price because most of these sales are to military users, particularly for ship building, that are covered by "Buy American" or Berry Amendment restrictions and require ASF with a set minimum amount of silica. On the other hand, Chinese ASF may experience small-to-moderate changes in response to the price of ASF because of availability of substitutes. Chinese ASF tends to be used in more varied, and less restricted end uses. ASF makes up a small cost share of most of its end-use products and this will reduce the responsiveness of demand to price changes.

End uses

U.S. demand for ASF depends on the demand for U.S.-produced downstream products. Reported end uses include industrial maintenance, repair, operations, and production applications, including pipe and hose coverings, removable pipe or vale insulation, gasketing and sealing, fire blankets, safety clothing, and welding protection fabrics.[11] ASF is used to insulate, resist extreme heat to conserve energy, and protect people, materials, and machinery from potential injury or damage.

AMI contends that almost half of U.S. ASF demand is for shipbuilding and repair.[12] AMI reported that *** of its sales between 2013 and 2015 (by volume) were "military sales" and ***.[13] Respondents claim that for some end uses such as clothing, high strength ASF is required and that U.S. producers do not produce high strength ASF.[14]

Cost share

ASF accounts for a varying degree of downstream products, depending on the end use and identified product. For example, ASF accounts for a large share of the cost of the end-use products in which it is directly used, such as insulation or heat protection fabrics, but a smaller share of other end-use products, such as large industrial applications. Reported cost shares for some end uses were as follows for welding protection and fabrication (100 percent), for

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[11] Respondent AVS reported that its ASF is used in shipbuilding, cutting and welding, foundry, textile fabrication, steel, power generation, expansion joints, oil refineries, and mining. AVS conference handout, p. 5.

[12] AMI's postconference brief, p. 24.

[13] AMI's postconference brief, Attachments 28 and 29, staff calculations.

[14] Conference transcript, p. 128 (Lebow). High-strength silica fabric differs from industrial grade ASF beginning with its source material. While industrial grade ASF starts with fiberglass fabric made from E-glass, high-strength silica fabric begins with a different filament fiberglass fabric that has a higher silica content. By using a higher silica content fabric, less of the yarn is leached away during this processing step, leaving a product roughly double the strength of industrial grade ASF. Conference transcript, pp. 149-153 (Sydow, Lebow, and Knapp).

isolation (30 percent), for welding curtain (25 percent), and for *** (51 percent).[15] AMI reports that *** of the finished product they produce from ASF is the cost of ASF.[16]

AMI reported that it considers ASF and the pads, blankets, and curtains that it produces from ASF as the end-use products.[17] These products, however, are used in welding and other industrial applications where some form of heat protection is essential. The cost of ASF is likely to be a small share of the cost in these larger, overall applications.

Business cycles

*** responding U.S. producers *** that the market was subject to business cycles or distinctive conditions of competition. One of eight responding importers indicated that the market was subject to business cycles. Specifically, demand was reported to be affected by defense spending and general economic conditions. *** and no importer reported that conditions had changed since 2013 as defense budgets have stagnated or declined. According to respondents, demand has declined in the military shipbuilding industry because of sequestration, and lower oil and gas prices have led to reduced demand from the oil and gas industry.[18]

Demand trends

Most firms reported that U.S. demand for ASF has decreased or fluctuated since January 1, 2013 (table II-3). Decreased demand was attributed to a slow market, reductions in shipbuilding and repairs, less refurbishing of nuclear power plants, and increased offshoring of manufacturing. Responding firms that indicated stable demand explained that increased use as thermal blankets for diesel vehicle emission reduction was offset by relocation of users outside the United States and the decline in shipbuilding and oil industry demand. Fluctuations in demand were attributed to plant outages and the economy.

Table II-3
ASF: Firms' responses regarding U.S. demand and demand outside the United States

Item	Increase	No change	Decrease	Fluctuate
Demand in the United States				
U.S. producers	***	***	***	***
Importers	1	1	2	3
Demand outside the United States				
U.S. producers	***	***	***	***
Importers	2	1	2	1

Source: Compiled from data submitted in response to Commission questionnaires.

[15] ***. Clarification to *** questionnaire received February 12, 2016.
[16] AMI's postconference brief, answers to staff questions, p. 24.
[17] Conference transcript, p. 88 (Ferrin).
[18] Conference transcript, pp. 103, 117 (Knapp, Sydow).

Substitute products

*** responding U.S. producers reported that there were ***. Four of the seven responding importers reported substitutes for ASF. Substitutes for ASF included: fiberglass and coated fiberglass (for welding protection and fabrication), S2 fabric,[19] ceramic fabric,[20] and quartz fabrics[21] (for fabrication, industrial use, and "isolation"), and high temperature treated glass and alumina fiber[22] (for industrial applications). Two importers reported that changes in the price of substitutes affect the price of ASF, reporting that purchasers use the most economic material that meets required temperature resistance and that use of substitutes was limited by temperature of the applications.

Petitioner and respondents disagree on the viability of substitutes, particularly on the importance of mid-silica fabric (fiberglass cloth with an elevated silica content that is less than 90 percent silica). AMI contends that there is no market for mid-silica fabric.[23] Respondents, on-the-other-hand, claim that in many applications purchasers have increased their use of less expensive mid-silica fabric at the expense of ASF. According to respondents, mid-silica fabric[24] is less heat resistant than ASF, but tends to be stronger than most ASF because less of the material is lost in the leaching process.[25] Respondents claim that mid-silica fabric[26] can be used in applications below 1,200 or 1,300 degrees including: petro chemical plants where atoms are cracked (500 to 1,200 degrees in most refineries); petrochemical plants cracking ethylenes to make plastic (700 to 900 degrees); power turbines with super-heated steam (up to 1,000 degrees); and pulp and paper applications (below 700 degrees). Higher temperature uses in which respondents contend mid-silica fabric could not be used include aircraft and racing cars (1,300 to 1,500 degrees).[27] Respondents allege that when produced in a continuous line leaching process (as opposed to a batch leaching process), producing mid-silica fabric requires less time and costs less to produce than ASF.[28]

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[19] S2 fabric can be used in up to 1,450 to 1,500 degrees Fahrenheit, but is "fairly expensive." Conference transcript, p. 129 (Sydow).

[20] Ceramic fabrics can be used in higher temperatures than ASF, but are more expensive than ASF. Conference transcript, pp. 70-71 (Van Atta).

[21] Quartz fabric is reported to be very expensive. Conference transcript, p. 129 (Sydow).

[22] A type of ceramic textile. Conference transcript, p. 70 (Van Atta).

[23] Conference transcript, p. 67 (Van Atta).

[24] There appears to be no industrial standard for this type of fabric and respondents report that the level of silica in the fabric may range from 70 to 93 percent silica. Conference transcript, pp. 133-134 (Ao).

[25] Conference transcript, pp. 101, 152-153 (Knapp, Sydow).

[26] Fiberglass fabric that has not been leached to increase the share of silica loses half its tensile strength at 750 degrees Fahrenheit and essentially all its strength in the 800 to 900 degree Fahrenheit range. Conference transcript, p. 154 (Dill).

[27] Conference transcript, pp. 156-157 (Dill).

[28] Respondents claim that two companies in China use the continuous line leaching process. Conference transcript, pp. 132-134 (Ao).

AMI contends that almost half of U.S. ASF demand is for shipbuilding and repair, and that no one has asserted that mid-silica fabric can be substituted for ASF in this end use.[29] According to respondents, however, mid-silica fabric "can meet the needs of 98 percent of end use applications" and mid-silica fabric "now accounts for approximately 30 percent" of silica fabrics imports.[30] AMI responded that, to the extent mid-silica fabric is being used as a substitute for ASF, it is mainly in end uses in which Chinese ASF was being used.[31]

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported ASF depends upon such factors as relative prices, quality (e.g., grade standards, reliability of supply, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, payment terms, product services, etc.) and "Buy American" or Berry Amendment restrictions on purchases. Based on available data, staff believes that there is moderate degree of substitutability between domestically produced ASF and ASF imported from China, though this varies depending on the application and purchaser constraints.

Lead times

ASF is primarily produced-to-order. U.S. producers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days. The remaining *** percent of their commercial shipments came from inventories, with lead times averaging ***. Importers reported that *** percent of their commercial shipments were produced-to-order, with lead times averaging *** days. Inventories in the United States provided *** percent of their commercial shipments came from inventories, with lead times averaging *** days and inventories in China accounted for *** percent of commercial shipments with lead times averaging *** days.

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[32] were asked to identify the main purchasing factors their firm considered in their purchasing decisions for ASF. ***.

Buy American/Berry Amendment

AMI reports that purchases of ASF by the U.S. Navy and by its contractors are covered by "Buy American" and "Berry Amendment" provisions that limit their purchases to materials

[29] AMI's postconference brief, p. 24.
[30] Respondents' postconference brief, p. 5.
[31] AMI's postconference brief, pp. 26-27.
[32] This information is compiled from responses by purchasers identified by the petitioner to the lost sales lost revenue allegations. See Part V for additional information.

produced in the United States.[33] The "Berry Amendment" restricts the use of funds provided by the Department of Defense to only purchase synthetic fabrics or coated synthetic fabrics produced in the United States, including the fibers and yarns used in these fabrics. Exceptions to the Berry Amendment are limited.[34] It alleged that some of the contractors covered by these provisions were not applying this requirement to purchase only U.S.-produced ASF.[35] AMI reports selling "over a million yards" of ASF to the Navy or defense contractors.[36]

Certification

AMI reports two types of standards used for ASF, a military standard, and an FM certification.[37] AMI, Mid-Mountain Materials, AVIS, and Lewco agreed that the FM standard is infrequently requested.[38] On the other hand, AMI reports that users for non-military applications will sometimes request product meeting military specifications.[39]

Comparison of U.S.-produced and imported ASF

In order to determine whether U.S.-produced ASF can generally be used in the same applications as imports from China, U.S. producers, and importers were asked whether the products can "always," "frequently," "sometimes," or "never" be used interchangeably. As shown in table II-4, ***. ***.

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[33] These restrict purchases of synthetic fabric using funds made available by the Department of Defense to 100 percent produced in the United States. "Buy American" applies to contracts below $150,000 and the Berry Amendments applies to contracts $150,000 and above. Conference transcript, p. 18 (Leonard).

[34] "A waiver to the Berry Amendment may be granted if the Secretary concerned determines that items … produced in the United States cannot be acquired as and when needed in a satisfactory quality and sufficient quantity at U.S. market prices. To be considered unavailable under the Berry Amendment, the item must not be available from any domestic source."
http://www.acq.osd.mil/dpap/cpic/ic/berry_amendment_faq.html retrieved February 26, 2016.

[35] Conference transcript, pp. 18-20 (Leonard).

[36] Conference transcript, p. 18 (Leonard).

[37] FM certification requires laboratory testing and is recognized by "the world's leading regulatory authorities." Conference transcript, pp. 16-17, 52, 80-82 (Leonard, Van Atta, Leonard).

[38] Conference transcript, pp. 83, 146-148 (Leonard, Knapp, Sydow, Dill).

[39] Conference transcript, p. 53 (Heffner).

Table II-4
ASF: Interchangeability between ASF produced in the United States and in other countries, by country pairs

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject country:								
U.S. vs. China	***	***	***	***	0	0	6	0
Nonsubject countries comparisons:								
U.S. vs. Latvia	***	***	***	***	0	3	2	0
U.S. vs. UK	***	***	***	***	0	1	1	0
U.S. vs. Other	***	***	***	***	0	3	1	0
China vs. Latvia	***	***	***	***	0	1	2	0
China vs. UK	***	***	***	***	0	0	3	0
China vs. Other	***	***	***	***	0	0	3	0
Latvia vs. UK	***	***	***	***	0	1	0	0
Latvia vs. Other	***	***	***	***	0	2	0	0
UK vs. Other	***	***	***	***	0	1	0	0

Note.—A=Always, F=Frequently, S=Sometimes, N=Never.

Source: Compiled from data submitted in response to Commission questionnaires.

All six responding importers reported that U.S. and Chinese ASF were "sometimes" interchangeable. For all other country pairs, all responding importers reported that ASF was "frequently" or "sometimes" interchangeable. ***.

Respondents allege that U.S. producers do not produce specialty high strength ASF which is made from a higher silica content fiber. Respondents explain that because of the initially higher silica content in the fiber, less material is lost in the leaching process, and as a result it is superior for applications such as sewing garments and other applications that require fabric manipulation. Respondents claim that high strength ASF is available from Latvia, Belarus, and one Chinese producer.[40]

In addition, producers and importers were asked to assess how often differences other than price were significant in sales of ASF from the United States, China, or nonsubject countries. ***. Differences reported by U.S. producers included ***.

Among the importers, two firms each reported that there were "always," "frequently," and "sometimes" differences other than price between U.S. and Chinese product. Most importers reported "sometimes" of "frequently" for all other country comparisons and all responding importers reported that there were at least sometimes differences other than price between ASF from all country pairs (table II-5). Similar to their responses regarding interchangeability, firms identified differences in strength and surface finish, quality, product range, technical support, delivery time, and payment terms as differences other than price across products.

[40] Conference transcript, pp. 144-145 (Dill).

Table II-5
ASF: Significance of differences other than price between ASF produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting			
	A	F	S	N	A	F	S	N
U.S. vs. subject country:								
U.S. vs. China	0	0	***	***	2	2	2	0
Nonsubject countries comparisons:								
U.S. vs. Latvia	0	0	***	***	0	2	3	0
U.S. vs. UK	0	0	***	***	0	1	1	0
U.S. vs. Other	0	0	***	***	0	1	3	0
China vs. Latvia	0	0	***	***	1	0	3	0
China vs. UK	0	0	***	***	0	0	1	0
China vs. Other	0	0	***	***	1	0	2	0
Latvia vs. UK	0	0	***	***	0	1	0	0
Latvia vs. Other	0	0	***	***	0	1	1	0
UK vs. Other	0	0	***	***	0	1	0	0

Note.--A = Always, F = Frequently, S = Sometimes, N = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

PART III: U.S. PRODUCERS' PRODUCTION, SHIPMENTS, AND EMPLOYMENT

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire responses of two firms that accounted for all known U.S. production of ASF during 2015.

U.S. PRODUCERS

The Commission issued a U.S. producer questionnaire to three firms based on information contained in the petition. Two firms provided useable data on their productive operations.[1] Staff believes that these responses represent all U.S. production of ASF.

Table III-1 lists U.S. producers of ASF, their production locations, positions on the petition, and shares of total production. Neither firm reported direct imports. AMI reported ***. This was ***. This plan was part of an AMI strategic plan ***. Additionally, ***.

Table III-1
ASF: U.S. producers of ASF, their positions on the petition, production locations, and shares of reported production, 2015

Firm	Position on petition	Production location(s)	Share of production (percent)
AMI Manufacturing, Inc.	Support	Mechanic Falls, ME Auburn, ME	***
HITCO Carbon Composites, Inc.[1]	Support	Gardena, CA	***
Total			100.0

[1] HITCO is ***.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-2a, table III-2b, and figure III-1 present U.S. producers' production, capacity, and capacity utilization. AMI bases its production capacity on ***. HITCO bases its production capacity on ***. AMI produces ***.

[1] The third firm identified in the petition responded to the Commission's questionnaire stating that it did not produce the subject product.

Table III-2a
ASF: U.S. producers' capacity, production, and capacity utilization, 2013-15

* * * * * * *

Figure III-1
ASF: U.S. producers' capacity, production, and capacity utilization, 2013-15

* * * * * * *

Table III-2b
ASF: U.S. producers' overall capacity and production on the same equipment as subject production, 2013-15

* * * * * * *

U.S. PRODUCERS' U.S. SHIPMENTS AND EXPORTS

Table III-3 presents U.S. producers' U.S. shipments, export shipments, and total shipments.

Table III-3
ASF: U.S. producers' U.S. shipments, exports shipments, and total shipments, 2013-15

* * * * * * *

Table III-4 presents U.S. producers' U.S. shipments by level of fabrication and table III-5 presents their U.S. shipments by FM ratings.[2]

Table III-4
ASF: U.S. producers' U.S. shipments, by level of fabrication, 2013-15

* * * * * * *

Table III-5
ASF: U.S. producers' U.S. shipments, by level of FM ratings, 2013-15

* * * * * * *

[2] There are three distinct categories (defined in the *American National Standard for Evaluating Welding Pads, Welding Blankets and Welding Curtains for Hot Work Operations*, ANSI FM 4950-2007 (R2013), February 2013) with specific acceptance criteria for each of the applications most likely to be encountered. The three categories in this standard are welding pads, welding blankets, and welding curtains.

U.S. PRODUCERS' INVENTORIES

Table III-6 presents U.S. producers' end-of-period inventories and the ratio of these inventories to U.S. producers' production, U.S. shipments, and total shipments**.**

Table III-6
ASF: U.S. producers' inventories, 2013-15

* * * * * * *

U.S. PRODUCERS' IMPORTS AND PURCHASES

U.S. producers' reported no direct imports. HITCO reported ***.[3]

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-7 shows U.S. producers' employment-related data. HITCO *** so totals shown may be overstated.

Table III-7
ASF: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2013-15

* * * * * * *

[3] HITCO reported ***.

PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND MARKET SHARES

U.S. IMPORTERS

The Commission issued importer questionnaires to 30 firms believed to be importers of subject ASF, as well as to all U.S. producers of ASF.[1] Usable questionnaire responses were received from seven companies, believed to represent the majority of U.S. imports from China in 2015. Table IV-1 lists all responding U.S. importers of ASF from China and other sources, their locations, and their shares of U.S. imports, in 2015.

Table IV-1
ASF: U.S. importers by source, 2015

Firm	Headquarters	Share of imports by source (percent)		
		China	All other sources	Total imports
Access China Industrial Textile, Inc., d/b/a ACIT (USA), Inc.	Bellevue, WA	***	***	***
ACMETEX INC.	Mississauga, ON	***	***	***
AVS INDUSTRIES	New Castle, DE	***	***	***
Lewco Specialty Products	Baton Rouge, LA	***	***	***
McAllister Mills	Independence, VA	***	***	***
Newtex Industries Inc.	Victor, NY	***	***	***
Steiner Industries, Inc.	Chicago, IL	***	***	***
Total		***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. IMPORTS

Table IV-2 presents data for U.S. imports of ASF from China and all other sources. Table C-2 in Appendix C presents official Commerce statistics for imports under HTS statistical reporting numbers 7019.59.4021, 7019.59.4096, 7019.59.9021, and 7019.59.9096.

Table IV-2
ASF: U.S. imports by source, 2013-15

* * * * * * *

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of proprietary information from U.S. Customs and Border Protection ("Customs").

Tables IV-3 and IV-4 present data on level of fabrication, FM-ratings, and sources of imports of ASF. Nearly all imports from all sources were of roll form and were of other certifications and/or not FM-rated.

Table IV-3
ASF: U.S. importers' U.S. shipments by level of fabrication and source, 2013-15

* * * * * * *

Table IV-4
ASF: U.S. importers' U.S. shipments by level of fabrication and source, 2013-15

* * * * * * *

NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[2] Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[3] Imports from China accounted for all reported imports of ASF during 2015.

[2] Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

[3] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

APPARENT U.S. CONSUMPTION AND MARKET SHARES

Table IV-5 and figure IV-1 presents data on apparent U.S. consumption and U.S. market shares for ASF. Reported U.S. shipments of imports of ASF from China accounted for *** of apparent U.S. consumption by 2015.

Table IV-5
ASF: U.S. shipments of domestic product, U.S. shipments of imports, apparent U.S. consumption, and market shares, 2013-15

* * * * * * *

Figure IV-1
ASF: Apparent U.S. consumption, 2013-15

* * * * * * *

PART V: PRICING DATA

FACTORS AFFECTING PRICES

Raw material costs

***.[1] ***. Raw materials as a share of cost of goods sold increased from just under *** percent in 2013 to slightly more than *** percent in 2015.[2]

U.S. inland transportation costs

*** responding U.S. producers and four of seven responding importers reported that they typically arrange transportation to their customers. *** reported U.S. inland transportation costs of *** percent while importers reported costs of *** percent.

PRICING PRACTICES

Pricing methods

AMI reported sales using ***[3] while HITCO reported using ***. Two of the six responding importers reported sales using multiple methods. Three importers each sold on a transaction-by-transaction basis, on a contract basis, and using set price lists (table V-1).[4]

Table V-1
ASF: U.S. producers' and importers' reported price setting methods, by number of responding firms[1]

Method	U.S. producers	Importers
Transaction-by-transaction	***	3
Contract	***	3
Set price list	***	3
Other	***	0

[1] The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

Source: Compiled from data submitted in response to Commission questionnaires.

[1] Conference transcript, p. 61 (Van Atta) and AMI's postconference brief, answers to staff questions, p. 6.

[2] ***.

[3] ***.

[4] One importer reported that it did not maintain U.S. inventories but imported product after the purchaser ordered it. It did not report how it set prices.

U.S. producers and importers reported their 2015 U.S. commercial shipments of ASF by type of sale. U.S. producers ***. In contrast, importers reported no sales using annual or long-term contracts; instead, importers sold *** percent of their ASF imports under short-term contracts and *** percent as spot sales (table V-2).

Table V-2
ASF: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2015

* * * * * * *

. U.S. producers' short-term contracts lasted *** days and long-term contracts lasted ***. Two importers reported contract provisions for short-term contracts and one for one-year contracts.[5] One importer reported the length of its short-term contracts (days). One importer reported that prices could be renegotiated during the short term contract, and the other that they could not. One importer each reported contracts that fixed price and fixed both price and quantity, and neither reported meet-or-release provisions.[6]

Sales terms and discounts

*** and all seven responding importers reported selling on an f.o.b. basis[7] although one of these also reported sales on a delivered basis. AMI reported ***. HITCO reported ***. Most responding importers (5 of 7) reported quantity discounts; three of these also reported total volume discounts,[8] while two importers reported no discount policy. *** five of six responding importers reported sales terms of net 30 days, three importers reported selling net 60, and one reported that terms were individually negotiated.

PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following ASF products shipped to unrelated U.S. customers during 2013-15.

Product 1.—18 ounce/yard^2, per MILC-24576

Product 2.—36 ounce/yard^2, per MILC-24576

[5] However, no importer reported using one year contracts in 2015.
[6] ***.
[7] One of these sold f.o.b. Chinese plant, but the others reported f.o.b. based in the United States.
[8] One of these also reported "market segment discounts."

***[9] and three importers[10] provided usable pricing data for sales of requested products, although not all firms reported pricing for all products for all quarters.[11] Pricing data reported by these firms accounted for approximately *** percent of the value of total U.S. producers' shipments and *** percent of the value of total U.S. shipments of subject imports from China in 2015.[12]

Price data for products 1-2 are presented in tables V-3 to V-4 and figures V-1 and V-2. Price data from both the United States and China were provided for both products in all quarters for which price data were collected. Importers were requested to provide price data for nonsubject counties (the United Kingdom and Latvia). Although importers reported imports of ASF from Latvia *** and Netherlands ***, no data were provided for the pricing products for ASF from nonsubject countries.

Table V-3
ASF: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 and margins of underselling/(overselling), by quarters, 2013-15

* * * * * * *

Table V-4
ASF: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarters, 2013-15

* * * * * * *

[9] ***.

[10] ***.

[11] U.S. producer AMI and importers *** reported usable price data. Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[12] Staff based coverage estimates are based on value because the quantities reflected in the broader trade data are in kilograms while those in the more specific price data are in square yards.

Figure V-1
ASF: Weighted-average prices and quantities of domestic and imported product 1, by quarters, 2013-15

* * * * * * *

Figure V-2
ASF: Weighted-average prices and quantities of domestic and imported product 2, by quarters, 2013-15

* * * * * * *

Price trends

Prices of U.S.-produced ASF increased slightly while prices of ASF imported from China decreased during 2013-15. Table V-5 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** percent during 2013-15 while import price decreases ranged from *** percent. Product 1 prices reported by AMI were higher in 2013 and the first quarter of 2014 than through the remainder of 2014 and the first three quarters of 2015, but then rose in the fourth quarter of 2015. Chinese product 1 prices fluctuated more than U.S. prices with no clear trend. Product 2 prices reported by AMI fell during the first three quarters of 2013 and then tended to increase to the first quarter of 2015, after which the price fell *** in the second quarter of 2015 and then increased to the ***. The price of Chinese product 2 declined from the first quarter of 2013 to the third quarter of 2014, after which prices fluctuated in a small range.

Table V-5
ASF: Summary of weighted-average f.o.b. prices for products 1-2 from the United States and China

Item	Number of quarters	Low price (per unit)	High price (per unit)	Change in price (percent)
Product 1				
United States	12	***	***	***
China	12	***	***	***
Product 2				
United States	12	***	***	***
China	12	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Price comparisons

As shown in table V-6, prices for ASF imported from China were below those for U.S.-produced product in all 24 instances (2,387,006 square yards). Margins of underselling ranged from 18.8 to 41.6 percent.

Table V-6
ASF: Instances of underselling/overselling and the range and average of margins, from China, 2013-15

	Number of quarters	Quantity (square yards)	Average margin (percent)	Margin range (percent)	
				Min	Min
Underselling	24	2,387,006	29.3	18.8	41.6
(Overselling)	0	0	--	--	--
Total	24	2,387,006	29.3	18.8	41.6

Source: Compiled from data submitted in response to Commission questionnaires.

LOST SALES AND LOST REVENUE

***. *** U.S. producer reported having to roll back announced price increases.[13] *** reported that they had lost sales to imports from China since January 1, 2013. *** submitted lost sales and lost revenue allegations. ***. U.S. producers were also asked to provide information regarding the timing, method of sale, and product type related to the lost sales and lost revenue allegations. ***.[14]

In response to the lost sales lost revenue survey, ***. ***.[15] According to these data, ***.

When asked if U.S. producers had reduced their price of domestically produced ASF to compete with imports of ASF from China, ***.[16]

***.[17] ***. AVS reported that some of its purchasers may consider its ASF to be U.S.-produced, although it is made in China.[18]

[13] ***.
[14] ***.
[15] ***.
[16] AMI claims that ***. AMI's postconference brief, p. 31.
[17] ***.
[18] Conference transcript, pp. 132-132 (Sydow).

PART VI: FINANCIAL EXPERIENCE OF U.S. PRODUCERS

INTRODUCTION

U.S. producers AMI and HITCO provided financial data on their operations on ASF. These data are believed to account for all U.S. production of ASF in 2015. *** reported some sales as ***.[1] These data are included but not shown separately in this section of the report. Both firms reported a fiscal year end of December 31.

OPERATIONS ON ASF

Income-and-loss data for U.S. producers of ASF are presented in table VI-1, while selected financial data, by firm, are presented in table VI-2. The reported profitability of the U.S. industry declined from 2013 to 2015. The reported aggregate net sales quantity declined by *** percent during this time, while the aggregate net sales value declined by *** percent. Collectively, the aggregate cost of goods sold ("COGS") and selling, general, and administrative ("SG&A") expenses declined by *** percent during this time. As a result of the larger decline in revenue as compared to operating costs and expenses, *** in 2015 than in either 2013 or 2014. Gross and net profitability followed generally similar trends during this time.[2]

Table VI-1
ASF: Results of operations of U.S. producers, 2013-15

* * * * * * *

Table VI-2
ASF: Selected results of operations of U.S. producers, by firm, 2013-15

* * * * * * *

On a per kilogram basis, raw material costs decreased, direct labor increased, and other factory costs and SG&A expenses modestly decreased from 2013 to 2015.[3] [4] [5] As a ratio to net sales, all components of COGS and SG&A expenses generally increased as total net sales value declined.

---

[1] ***. Email from ***, February 8, 2016.

[2] From 2013 to 2015, gross profit continually declined but was ***, while operating and net income somewhat improved from 2013 to 2014 before *** declining in 2015. Operating and net ***.

[3] ***. Email from ***, February 19, 2016.

[4] ***. Postconference brief of AMI, Answers to Commission Staff Questions, p. 6.

***. Email from ***, February 19, 2016.

[5] ***. Email from ***, February 19, 2016.

Raw material costs accounted for an average *** percent of total COGS for the reporting period, and had a notable impact on the increase or decrease in COGS during this time. SG&A expenses accounted for an average *** percent of total operating costs and expenses for the reporting period, and also had a notable impact on the industry's reported profitability. The U.S. industry experienced positive *** throughout 2013 to 2015; however, *** occurred in *** years as SG&A expenses ***.[6]

Variance analysis

The variance analysis presented in table VI-3 is based on the data in table VI-1.[7] The analysis shows that the *** in operating profitability from 2013 to 2015 is attributable to ***.

Table VI-3
ASF: Variance analysis on the operations of U.S. producers, 2013-15

* * * * * * *

Capital expenditures, research and development expenses, total assets, and return on assets

The responding firms' aggregate data on capital expenditures, research and development ("R&D") expenses, total assets, and return on assets ("ROA") are shown in table VI-4. *** reported capital expenditure data, and *** reported research and development ("R&D") expenses. Aggregate capital expenditures *** from 2013 to 2015. ***.[8] The total assets utilized in the production, warehousing, and sale of ASF *** from $*** in 2013 to $*** in 2015, and the ROA *** from *** percent in 2013 to *** percent in 2015.[9]

---

[6] As a ratio to sales, ***. Email from ***, February, 8, 2016.

[7] The Commission's variance analysis is calculated in three parts: sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost variance is calculated as the change in unit price or unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or unit cost. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively; and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances.

[8] U.S. producers' questionnaire response of ***, question III-13. ***.

[9] The return on assets is calculated as operating income divided by total assets. With respect to a firm's overall operations, the total asset value reflects an aggregation of a number of assets which are generally not product specific. Thus, high-level allocations are generally required in order to report a total asset value for the subject product.

Table VI-4
ASF: Capital expenditures, R&D expenses, total assets, and ROA of U.S. producers, 2013-15

* * * * * * *

Capital and investment

The Commission requested that U.S. producers of ASF describe any negative effects of imports of ASF from China on their firms' return on investment or the scale of capital investments, as well as any negative effects on their firms' growth, ability to raise capital, or existing development and production efforts. Responses are shown in tables VI-5a and VI-5b.

Table VI-5a
ASF: Negative effects of imports as reported by U.S. producer *, by factor**

* * * * * * *

Table VI-5b
ASF: Negative effects of imports as reported by U.S. producer *, by factor**

* * * * * * *

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

Section 771(7)(F)(i) of the Act (19 U.S.C. § 1677(7)(F)(i)) provides that—

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

(V) inventories of the subject merchandise,

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

Information on the nature of the alleged subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

[2] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

THE INDUSTRY IN CHINA

The Commission issued questionnaires to 60 firms thought to produce and/or export ASF from China.[3] Four firms submitted useable responses to the Commission's questionnaires: ACIT (Pinghu) Inc.,[4] Huatek New Material Inc., NanJing Tianyuan Fiberglass Material Co., Ltd., and Qingdao Junfeng Industry Co. Ltd.[5] ACIT estimates that it is the *** producer of ASF in China as well as the *** exporter of ASF from China to the United States, accounting for *** percent of in-scope production and subject exports. NanJing Tianyuan estimates that it accounted for *** percent of ASF production in China. Huatek and Qingdao Junfeng did not provide estimates of their shares of ASF production in China. *** of these firms reported exports of ASF to the United States; the reported quantity of such exports in 2015 was equivalent to nearly *** percent of the quantity of U.S. imports of ASF reported by U.S. importers.

Table VII-1 presents information on the ASF operations of the responding producers and exporters in China. Exports of ASF to the United States reported by the four Chinese producers accounted for the largest portion of the firms' total shipments, ranging from*** percent of total shipments in 2014. However, ***.

Table VII-1
ASF: Data for producers in China, 2013-15 and projections for calendar years 2016 and 2017

* * * * * * *

ACIT reported that the "***." In addition, they state "***." No other firm reported any changes or constraints in operations.

Table VII-2 presents the four reporting Chinese producers' overall capacity and production on the same equipment as subject production during 2013-15.

Table VII-2
ASF: Chinese producers' overall capacity and production on the same equipment as subject production, 2013-15

* * * * * * *

[3] These firms were identified through a review of information submitted in the petition and contained in proprietary Customs records .

[4] According to ACIT's questionnaire response, ***.

[5] Qingdao Junfeng Industry Co. Ltd. reported that it *** but reported no details.

U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-3 presents data on U.S. importers' reported inventories of ASF.

Table VII-3
ASF: U.S. importers' end-of-period inventories by source, 2013-15

* * * * * * *

U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of ASF from China after December 31, 2015. *** of the importers of Chinese ASF indicated that they had arranged for imports in the *** and the importer of nonsubject product arranged for imports (***) from *** in the ***.

ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

There are no known antidumping or countervailing duty orders currently in effect concerning ASF in third-country markets.

INFORMATION ON NONSUBJECT COUNTRIES

ASF is currently produced in at least three nonsubject countries: Belarus, Latvia, and the United Kingdom. Only Latvia is believed to be a substantial source of ASF exports to the United States, although according to the respondents the industry in Latvia produces a lower silica product (94 percent silica rather than 96 percent).[6] Belarus was a substantial source of exports to the United States and reportedly produces ASF with 98 percent silica content.[7] Sanction exceptions that had been in effect for two U.S. companies to transact with Polotsk-Steknovolokno, the Belarusian silica fabric manufacturer,[8] were not renewed on May 31, 2011, which prohibited further U.S. imports of silica fabric from Belarus. However, effective October 30, 2015, U.S. transactions were again permitted with the company,[9] although according to conference testimony Belarusian ASF has yet to re-enter the U.S. market.[10]

Table VII-4 presents the largest global export sources of other woven fabrics of glass fibers (HS 7019.59) during 2012-14. HS 7019.59 is substantially broader than the subject HTS provisions, which are themselves broad product categories, and therefore contains many

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[6] Conference transcript, p. 107 (Ao).

[7] Conference transcript, p. 107 (Ao).

[8] Polotsk-Steklovolokno web-site, http://eng.polotsk-psv.by/production/catalog/silica/ (accessed February 26, 2016).

[9] *Federal Register*, Vol. 75, No. 229, November 30, 2010, p. 73958; U.S. Department of the Treasury, Office of Foreign Assets Control, *Belarus Sanctions Regulations 31 C.F.F. Part 548*, October 29, 2015.

[10] Conference transcript, p. 76 (Leonard).

nonsubject articles. However, China is still the largest global exporter of these woven glass fiber fabrics by value in every year from 2012 to 2014.

Table VII-4
ASF: Global exports by exporting country, 2012-14

Item	Calendar year		
	2012	2013	2014
	Value (1,000 dollars)		
United States	126,384	119,838	([1])
China	208,452	231,354	226,438
All other major exporting countries.--Germany	181,508	177,301	([1])
Czech Republic	122,499	123,177	([1])
Taiwan	102,735	81,456	([1])
France	65,256	76,790	([1])
United Kingdom	56,064	71,221	([1])
Latvia	66,045	66,436	([1])
Belgium	33,648	49,513	([1])
Netherlands	37,841	43,624	([1])
Italy	29,280	29,834	([1])
Hungary	28,655	25,587	([1])
All other exporting countries	283,595	277,919	52,230
Total global exports	1,341,964	1,374,050	278,668
	Share of value (percent)		
United States	9.4	8.7	([2])
China	15.5	16.8	81.3
All other major exporting countries.--Germany	13.5	12.9	([2])
Czech Republic	9.1	9.0	([2])
Taiwan	7.7	5.9	([2])
France	4.9	5.6	([2])
United Kingdom	4.2	5.2	([2])
Latvia	4.9	4.8	([2])
Belgium	2.5	3.6	([2])
Netherlands	2.8	3.2	([2])
Italy	2.2	2.2	([2])
Hungary	2.1	1.9	([2])
All other exporting countries	21.1	20.2	18.7
Total global exports	100.0	100.0	100.0

[1] Not reported.
[2] Not applicable.

Note.--Quantity data are not reported since there is no consistent unit used across reporting countries. Some report in square meters, others in weight measures such as metric tons. Not all National Statistical authorities have reported their 2015 data into the GTIS/GTA database. Because of rounding, figures may not add to totals shown.

Source: Official export statistics under HTS subheading 7019.59 as reported by various national statistical authorities in the GTIS/GTA database, accessed January 29, 2016.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
81 FR 4335 January 26, 2016	*Certain Amorphous Silica Fabric From China; Institution of Antidumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.gpo.gov/fdsys/pkg/FR-2016-01-26/pdf/2016-01423.pdf
81 FR 8909 February 23, 2016	*Certain Amorphous Silica Fabric From the People's Republic of China: Initiation of Countervailing Duty Investigation*	https://www.gpo.gov/fdsys/pkg/FR-2016-02-23/pdf/2016-03751.pdf
81 FR 8913 February 23, 2016	*Certain Amorphous Silica Fabric From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*	https://www.gpo.gov/fdsys/pkg/FR-2016-02-23/pdf/2016-03756.pdf

APPENDIX B

LIST OF CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission's preliminary conference:

Subject: Certain Amorphous Silica Fabric from China

Inv. Nos.: 701-TA-555 and 731-TA-1310 (Preliminary)

Date and Time: February 10, 2016 - 9:30 a.m.

Sessions were held in connection with these preliminary phase investigations in Courtroom A (Room 100), 500 E Street, S.W., Washington, DC.

In Support of the Imposition of
Antidumping and Countervailing Duty Orders:

Drinker Biddle & Reath LLP
Washington, DC
on behalf of

Auburn Manufacturing, Inc.

Kathie Leonard, President *and* Chief Executive Officer,
Auburn Manufacturing, Inc.

Garrett VanAtta, Vice President of Innovation Engineering,
Auburn Manufacturing, Inc.

James Dougan, Vice President, Economic Consulting Services, LLC

Douglas J. Heffner)
) – OF COUNSEL
Richard P. Ferrin)

In Opposition to the Imposition of
Antidumping and Countervailing Duty Orders:

Haynes and Boone LLP
Washington, DC
on behalf of

AVS Industries, LLC

David Sydow, President *and* Chief Executive Officer, AVS Industries, LLC

Doug Sydow, Vice President, Sales and Marketing, AVS Industries, LLC

Edward M. Lebow) – OF COUNSEL

Mowry & Grimson, PLLC
Washington, DC
on behalf of

ACIT-USA, Inc.

Jie Ao, President, ACIT-USA, Inc.

John Knapp, President *and* Chief Executive Officer, Mid-Mountain Materials, Inc.

Lewis Dill, President and CEO, Lewco Specialty Products, Inc.

Jeffrey Grimson)
) – OF COUNSEL
Kristin Mowry)

APPENDIX C

SUMMARY DATA

Table C-1
ASF: Summary data concerning the U.S. market, 2013-15

* * * * * * *

Table C-2
ASF: U.S. imports from top nonsubject sources, 2013-15

Item	Calendar year		
	2013	2014	2015
	Quantity (kilograms)		
United Kingdom	178,019	295,839	575,982
Korea	267,704	696,598	538,329
Canada	397,006	372,670	351,671
Germany	371,542	415,342	324,040
Latvia	449,827	477,359	178,330
Taiwan	156,470	192,716	145,836
Mexico	66,230	81,765	84,508
Croatia	0	0	65,797
Czech Republic	9,773	21,789	61,261
Netherlands	33,415	59,072	53,309
All other sources	129,931	267,547	168,751
Total, nonsubject sources	2,059,917	2,880,697	2,547,814
	Value (1,000 dollars)		
United Kingdom	3,126	4,533	7,505
Korea	2,495	4,564	3,583
Canada	3,323	4,057	4,382
Germany	4,215	5,362	4,424
Latvia	6,179	5,486	2,127
Taiwan	1,038	1,481	1,484
Mexico	604	722	768
Croatia	0	0	664
Czech Republic	40	93	493
Netherlands	2,012	2,821	3,086
All other sources	3,399	7,141	4,251
Total, nonsubject sources	26,430	36,262	32,767
	Unit value (dollars per kilogram)		
United Kingdom	17.56	15.32	13.03
Korea	9.32	6.55	6.66
Canada	8.37	10.89	12.46
Germany	11.34	12.91	13.65
Latvia	13.74	11.49	11.93
Taiwan	6.63	7.69	10.17
Mexico	9.12	8.83	9.08
Croatia	([1])	([1])	10.09
Czech Republic	4.06	4.29	8.05
Netherlands	60.22	47.76	57.88
All other sources	26.16	26.69	25.19
Total, nonsubject sources	12.83	12.59	12.86

[1] Undefined.

Note.--HTS numbers included are thought to be broad categories, and, therefore, data are considered to over estimate subject product.

Source: Official Commerce statistics under HTS statistical reporting numbers 7019.59.4021, 7019.59.4096, 7019.59.9021, and 7019.59.9096, accessed February 8, 2016.