UNITED STATES TARIFF COMMISSION

# ROLLED GLASS: WORKERS OF ARMSTRONG GLASS CO., ERWIN, TENN.

Report to the President
on Investigation No. TEA-W-113
Under Section 301 (c)(2) of the Trade Expansion Act of 1962

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UNITED STATES TARIFF COMMISSION



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C O N T E N T S



Appendix Tables

Appendix tables--Continued



Note.--The whole of the Commission's report to the President may not be made public since it contains certain information that would result in the disclosure of the operations of an individual concern. This published report is the same as the report to the President, except that the above-mentioned information has been omitted. Such omissions are indicated by asterisks.

REPORT TO THE PRESIDENT

U.S. Tariff Commission,
January 28, 1972.

Mr. President:

In accordance with section 301(f)(1) of the Trade Expansion Act of 1962 (76 Stat. 885), the U.S. Tariff Commission herein reports the results of an investigation made under section 301(c)(2) of that Act in response to a workers' petition to apply for adjustment assistance.

On July 8, 1971, Local Union No. 478, United Glass and Ceramic Workers of North America, AFL-CIO, filed a petition for a determination of eligibility to apply for adjustment assistance on behalf of the production and maintenance workers of Armstrong Glass Co., Erwin, Tenn. Upon receipt of supplementary information provided by the petitioner, the Commission instituted the investigation (TEA-W-113) on September 28, 1971, to determine whether, as a result in major part of concessions granted under trade agreements, articles like or directly competitive with rolled glass produced by Armstrong Glass Co., Erwin, Tenn., are being imported into the United States in such increased quantities as to cause, or threaten to cause, the unemployment or underemployment of a significant number or proportion of the workers of the Erwin plant.

Pursuant to section 403(a) of the Trade Expansion Act, this investigation was consolidated with the investigation of the flat glass industry being conducted by the Tariff Commission under section 301(b)(1) of the act (Investigation No. TEA-I-23). The industry investigation was instituted by the Commission on August 16, 1971 (36 F.R. 16223), and a hearing was held on November 9, 11, 12, and 15, 1971.

The information in this report was obtained principally from the petitioner, from C-E Glass, Inc.--a subsidiary of Combustion Engineering, Inc. and present owner of the Armstrong facility--from domestic producers and importers of rolled glass, from information obtained during the hearing on the glass industry, and from the Commission's files.

## Finding of the Commission

On the basis of its investigation, the Commission 1/ unanimously finds that articles like or directly competitive with rolled glass (of the types described in items 541.11, 541.21, and 541.31 of the Tariff Schedules of the United States) produced by Armstrong Glass Co., Erwin, Tennessee, are not, as a result in major part of concessions granted under trade agreements, being imported into the United States in such increased quantities as to cause, or threaten to cause, the unemployment or underemployment of a significant number or proportion of the workers of that company.

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1/ Commissioners Sutton and Leonard did not participate in the decision.

## Considerations Supporting the Commission's Finding

This investigation was undertaken in response to a petition for adjustment assistance filed on behalf of the production and maintenance workers of Armstrong Glass Co., Erwin, Tennessee. The company, which had begun the production of rolled glass late in 1967, ceased production in July 1970. Subsequently, about the time the petition was filed, a recall of the former workers at Armstrong began.

The Trade Expansion Act establishes four criteria to be met before an affirmative determination can be made. These criteria are:

(1) Articles like or directly competitive with those produced by the workers' firm (or appropriate subdivision) must be imported in increased quantities;

(2) The increased imports must be a result in major part of concessions granted under trade agreements;

(3) The workers producing the like or directly competitive article must be unemployed or underemployed, or threatened with unemployment or underemployment; and

(4) The increased imports resulting in major part from trade-agreement concessions must be the major factor in causing or threatening to cause the unemployment or underemployment.

If any one of the above criteria is not satisfied in a given case, the Commission must make a negative determination. In the present case, the Commission has concluded that import competition was not the major factor causing the unemployment of Armstrong's workers. Since the fourth criteria is not satisfied, it is not necessary to consider

whether the other three criteria have been met, and the Commission has not done so.

When Armstrong started the production of rolled glass in the last part of 1967, it quickly gained a significant share of the U.S. market. In 1968 and 1969, Armstrong's shipments amounted to***percent and*** percent, respectively, of total U.S. consumption of rolled glass. The company ceased production in July 1970, shutting off a production run which if maintained for the full year, would have resulted in output substantially above any previous total for the firm.

Certainly the cause of Armstrong's shutdown was not import competition, but rather general corporate difficulties. As Armstrong Glass Co., the firm became involved in a disadvantageous reorganization, and the company functioned with many of the characteristics of an undercapitalized organization. * * *

Armstrong entered the rolled glass industry at a time when imports were at their height. The petitioning workers were laid-off, however, at a time when import pressures had greatly diminished. U.S. imports of rolled glass in 1970, when Armstrong shut down, were only three-fifths the volume in 1967, when the company was founded; the share of the U.S. market supplied by imports was 17 percent in

1970, compared with 30 percent in 1967. U.S. imports of rolled glass from Poland--a competition that especially concerned Armstrong's management--also sharply declined. The timing of the plant's closing indicates that the decision was prompted by factors more influential than the level of imports.

The price charged for the Armstrong product was exceptionally low, being generally 15 to 20 percent lower than the price of comparable imported glass. This difference existed in spite of a clear-cut preference in the trade for domestic rolled glass. In addition, Armstrong was heavily dependent on only three customers. Thus, when one of these was acquired by another domestic producer (and thus became a captive outlet for that producer), Armstrong lost a customer which accounted for approximately one-quarter of its shipments. This loss was clearly the result of the vagaries of domestic business rather than the impact of increased imports.

All the available evidence indicates that Armstrong's inability to maintain a viable operation was largely divorced from import competition. Recently, moreover, the company has been acquired by another domestic glass firm. That firm has reopened the plant, the difficulties which forced Armstrong's closing seem overcome, most of the former workers have returned to work, the plant is functioning at a high level of capacity, and expanded operations are envisioned.

In light of the circumstances set forth above, the Commission has concluded that the requirements of the statute have not been met.

# INFORMATION OBTAINED IN THE INVESTIGATION

## Description of Product

### Description and uses

The term "rolled glass," as used in the trade, refers to flat glass whose surface has been impressed with designs or irregularities. The imprint may be in the form of patterns, e.g., fluted, figured, pebbled, and crosshatched, or may be simply rough textured, so that light may be transmitted but the glass is not transparent. The design may be impressed on both sides, but most rolled glass used in the United States is impressed on only one side.

Rolled glass is produced in thicknesses ranging from about 1/8 inch to 3/8 inch. It is used for decorative as well as utilitarian purposes, as in skylights, office partitions, bath and shower enclosures, and jalousies.

Rolled glass may be colored; as such, it is known as cathedral, opalescent, or ornamental glass. It is produced primarily for decorative use in light fixtures, church windows, and for "stained glass" effects.

Rough plate-glass blanks, before grinding and polishing, are sometimes sold without further processing as rolled glass. The imprint on such glass, however, occurs as an intermediate stage in plate-glass manufacture, not as an end of production in itself. Rough plate-glass blanks are much larger than the sheets produced by rolled-glass manufacturers, and are frequently used for special architectural effects.

Rolled glass may also be tempered. As tempered rolled glass it may be used as a "premium" product in essentially the same applications as untempered rolled glass. In some States, safety-glazing materials,

which include tempered glass, are now required for use in hazardous locations, such as shower enclosures, where untempered rolled glass may formerly have been used.

Methods of production

Rolled glass, like all glass, is made by fusing mixtures of silica sand with other materials at high temperatures. The basic raw materials are silica sand, soda ash, and lime. A typical batch of raw materials for ordinary (uncolored) rolled glass is composed of mostly silica sand and waste glass, with moderate amounts of soda ash, limestone, dolomite, and smaller amounts of other materials. Once a batch formula has been selected, uniformity in the content as well as in the temperature of the molten glass affects the quality of the finished product. Low-quality rolled glass contains a disproportionate number of small air or gas pockets called seeds, and, while these may not be as critical in rolled glass as they are in transparent glass products, they can affect the tempering quality of the glass.

Most rolled glass, including that made by Armstrong, is made by the continuous process. In this process the raw material batch is fed into the melting compartment of a refractory lined furnace. The opposite end of the furnace contains a working compartment in which the molten glass is kept at uniform temperature. The molten glass is

pulled from the working compartment as a continuous sheet and passes between two rollers. The rollers, one or both of which have a patterned or textured surface, impress the design or irregularities on the surface of the glass before it solidifies. The glass then passes through an annealing lehr where internal stresses are removed, and, upon emergence from the lehr, it is inspected, cut to size, packaged, and prepared for shipment or inventory.

Some colored or special rolled glass is produced by an intermittent process whereby molten glass is withdrawn from a furnace by large iron ladles and poured or cast (hence, the name "cast glass") onto a flat iron table. A roller then passes over the table and a design is impressed into the glass, usually by configurations on the surface of the table rather than on the roller. This method is used by specialty producers who manufacture a large number of designs or colors, but because of the handicraft nature of the process it is unsuited for mass production.

## U.S. Tariff Treatment

Since August 31, 1963, rolled glass has been dutiable under items 541.11, 541.21, and 541.31 of the Tariff Schedules of the United States (TSUS). The great bulk of imported rolled glass enters under TSUS item 541.11, which provides for ordinary (uncolored) rolled glass; TSUS items 541.21 and 541.31 provide for colored or special rolled glass. Ordinary rolled glass is currently dutiable at 0.3 cent per pound under item 541.11. Colored or special rolled

glass is dutiable at 0.6 cent per pound if entered under item 541.21, or at 0.3 cent per pound plus 1 percent ad valorem if entered under item 541.31. These rates are the final stage of the Kennedy Round concessions.

The current rates of duty are substantially less than the statutory rates. As a result of negotiations under the General Agreement on Tariffs and Trade, the statutory rate on ordinary rolled glass (1.5 cents per pound) was reduced to 0.75 cent per pound in 1948 and further reduced in stages to 0.625 cent per pound in 1958. It remained at this level through 1967, the first year of Armstrong's operation. Pursuant to concessions negotiated under the Kennedy Round, the rate of duty was reduced to 0.55 cent per pound in 1968 and to the present rate on January 1, 1972 (table 1). The rates of duty on colored or special rolled glass, items 541.21 and 541.31, have likewise been reduced in trade agreements to their present levels. With the implementation of the final stage of the Kennedy Round, the rate on ordinary glass, item 541.11, is now 80 percent lower than the statutory rate. The rates on colored or special rolled glass, items 541.21 and 541.31, are 89 percent and approximately 75 percent lower, respectively, than the statutory rate.

## U.S. Producers

During the late 1960's, eight domestic firms, operating 12 establishments, were engaged in the production of rolled glass (including rough plate-glass blanks). Two firms, American St. Gobain Co. and

Mississippi Glass Co., accounted for slightly more than *** percent of domestic production. In 1968 and 1969, Armstrong accounted for slightly more than *** percent.

After 1970, the number of firms was reduced to seven, and one establishment was rebuilt and converted from rolled-glass to float-glass production. Following mergers, acquisitions, and corporate reorganizations, the successors of the two firms mentioned above (ASG Industries and C-E Glass), both large integrated manufacturers of flat glass and tempered glass, increased their share of rolled glass production to about *** percent of the total.

The remaining five firms include two large, integrated flat-glass producers which produce rough plate-glass blanks, and three smaller firms which produce colored rolled glass exclusively.

## U.S. Consumption 1/

Since the mid-1960's, apparent annual U.S. consumption of rolled glass has slightly declined. This decline is attributable, in part, to safety-glazing legislation, which has led to the substitution of acrylic plastics in specific applications, particularly in mobile homes, to a declining usage of jalousie louvres (which are often constructed of rolled glass), and to the depression in residential construction which prevailed in 1969 and 1970.

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1/ Consumption includes factory shipments (less exports) to customers and company-owned outlets, intracompany transfers, and imports for consumption.

Apparent U.S. consumption of rolled glass averaged 208 million pounds during 1964-66; it declined to 185 million pounds in 1967, then rose to 208 million pounds in 1968. It declined slightly in 1969, and further declined to 195 million pounds in 1970. In the first half of 1971 the volume of consumption was about 3 percent less than in the corresponding period of 1970 (table 2).

## U.S. Production, Shipments, [1] and Inventories

U.S. production of rolled glass increased from 143 million pounds in 1967 to 167 million pounds in 1970 (table 3). During the first 6 months of 1971, however, it was approximately 15 percent less than in the first 6 months of 1970. The increase in 1967-70 was accounted for by * * * , one of the two major U.S. producers, and Armstrong Glass Co., which produced an important share of U.S. output in 1968, 1969, and the first half of 1970. Production by the other major U.S. producer, * * * declined from 1967 to 1969, * * *

U.S. shipments to customers of rolled glass increased from 122 million pounds in 1967 to 148 million pounds in 1969, or by 22 percent, but then declined to 139 million pounds in 1970. In the first half of 1971, shipments were about 9 percent lower than in the corresponding

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1/ Shipments include intracompany transfers, factory shipments to customers, shipments to producer's own company outlets for sale, and exports.

period of 1970 (table 3). About 90 percent of shipments consist of ordinary or uncolored rolled glass; the balance is colored or special glass. Colored rolled glass, while representing a small share of both total domestic production and shipments, is the principal product of the three smaller rolled-glass producers (excluding Libbey-Owens-Ford Co. and PPG Industries, Inc., both of which produce and ship rough plate-glass blanks rather than rolled glass per se).

The great bulk of rolled glass is sold directly to customers, of which distributors (including jobbers, wholesalers, and contractors) and sash-and-door manufacturers are the most important. Shipments to company-owned outlets account for only about *** percent of the total.

Intracompany transfers for processing more than doubled, from 13 million pounds in 1967 to 27 million pounds in 1970. The increase continued into the first half of 1971. Further processing in rolled-glass establishments includes surface coating, cutting, and beveling to jalousie sizes; fabricating into spandrels, insulating units, or light fixtures; and tempering. Owing to the increase in safety-glazing legislation, tempering is thought to account for much of the increase.

Yearend inventories of rolled glass have declined since 1967, from 53 million pounds to 36 million pounds. In 1967, factory inventories amounted to more than 40 percent of factory shipments, but in 1970 the ratio was reduced to about 25 percent. The generally high level of inventory, compared with that of other flat-glass products, results from the necessity of stocking a large number of patterns.

A year's supply of a particular pattern, for instance, may be run in 3 or 4 days' operation on the production line.

U.S. exports of rolled glass averaged 5.7 million pounds in 1967-70 and accounted for about 4 percent of total shipments. This level was considerably higher than in the 1964-66 period, when exports averaged 3.8 million pounds a year and accounted for 2.6 percent of shipments. Year-to-year fluctuations of exports have been substantial. Canada, the Netherlands, and Australia have been the principal destinations.

## U.S. Imports

Annual U.S. imports of rolled glass averaged about 63 million pounds during the mid-1960's. Thereafter, imports declined to 54 million pounds in 1967, rose to 61 million pounds in 1968, then further declined to 45 million pounds in 1969 and 33 million pounds in 1970 (table 5). Imports were slightly greater in the first 6 months of 1971 than they were in the comparable period of 1970.

During the period 1967-70, the share of U.S. consumption of rolled glass supplied by imports decreased substantially, from 30 percent in 1967 and 1968 to 17 percent in 1970. The data in table 2 show a moderate increase for the first half of 1971 in the share of the market supplied by imports.

During the period 1967-70, the principal sources of imported rolled glass were Belgium, Japan, Poland, West Germany, and Taiwan. Imports from these countries accounted for nearly 90 percent of the total quantity of imports in that period.

The petitioners in this investigation assert that imports from Poland were the ones most directly competitive with the rolled glass produced by the Armstrong Glass Co. One of Armstrong's original owners asserted that the company would have remained in operation had it not been for the imported Polish glass. However, as shown in table 5, imports from Poland, which entered at trade-agreement rates of duty, declined each year during the period 1967-70, and they declined at a faster rate than did imports of rolled glass from all sources. In 1970, imports from Poland were 70 percent lower than they were in 1967 (78 percent lower than in 1966, the peak year for Polish imports), while total imports had declined 39 percent from the 1967 level.

Nearly 85 percent of imports, by weight, from all sources have consisted of ordinary (uncolored) rolled glass; the remainder have consisted of colored or special rolled glass. Virtually all rolled glass imported from Poland has consisted of ordinary rolled glass.

Some rolled glass, less than 1 percent of annual imports since 1967, enters from Communist-dominated countries at the statutory rates of duty. These imports declined during the 1960's after reaching a peak of 8.4 million pounds in 1960. They have since declined from 1.6 million pounds in 1967 to 0.2 million pounds in 1970;

during the first 6 months of 1971 they were almost nil. Most of these imports in recent years have come from Czechoslovakia.

# Armstrong Glass Co.

## Corporate structure and history

The Armstrong Glass Co. of Erwin, Tenn., was incorporated under the laws of Tennessee in 1965. The principal organizers--a group of seven individuals from Miami Beach, Fla.--entered into an agreement with the town of Erwin (population 4,700) for the construction of a rolled-glass plant. The company put up $300,000, and the town issued general revenue bonds in the amount of $500,000. Armstrong was given a 25-year lease on the facilities to be built, with an option to buy at the end of that period. Principal and interest payments on these bonds, some $33,000 a year, fell upon the town of Erwin when Armstrong defaulted. The plant was completed in mid-1967, and the sale of rolled glass commenced in December of the same year.

In January 1969 the outstanding stock in Armstrong was exchanged for stock in TTC Industries, Inc. (formerly Top Trading Corp.), a New York-based corporation which was primarily an import house. Control and supervision of Armstrong was then divided between the original incorporators and TTC Industries. On July 18, 1970, Armstrong ceased production of rolled glass.

In August 1970, 57 percent of TTC, including the whole of Armstrong, was acquired by American Diversified Industries, Inc. (ADI), through an exchange of stock. ADI was a New York-based corporation dealing in motion-picture libraries, the importation of motion pictures, CATV systems, and land development in the Bahamas. In November 1970, Armstrong, through TTC, filed a chapter XI petition

under the bankruptcy laws in the U.S. District Court for the Eastern District of New York. Subsequently, the proceeding was transferred to the U.S. District Court for the Eastern District of Tennessee. This proceeding is still pending. A number of suits and counter suits between TTC and the original organizers are also before the courts.

Present status

In May 1971, C-E Glass, a large domestic producer of rolled glass, polished wire glass, float glass, and tempered glass, acquired the leasehold interest of Armstrong from the trustee in bankruptcy, and assumed the bond liability of the town of Erwin. C-E has been producing rolled glass at the Armstrong facility since July 1971, operating the plant under the name of C-E Glass. It is currently producing at more than *** percent of capacity and has hired most (***) of the workers who are party to this petition.

C-E Glass, through its ownership of Mississippi Glass Co., was already a major producer of rolled glass when it acquired Armstrong. It closed down its rolled-glass facilities at Floreffe, Pa., subsequently rebuilding that plant as a float-glass plant. The acquisition of the Armstrong facility offset the loss of rolled-glass capacity at Floreffe. * * *

* * *

Plant and equipment

The plant consists of a one-floor brick, steel, and concrete building situated on a 16-acre tract of land and occupies 50,000 square feet of floor space. Adjoining the plant is a silo wherein the raw materials for glass manufacture are mixed.

The manufacturing equipment consists of one new electric furnace and rolling machine, and certain other equipment purchased from the Ford Motor Co. glass plant at Nashville, Tenn., when that establishment phased out sheet-glass production. Within the area served by the Tennessee Valley Authority an electric furnace is regarded as more economical to operate than a natural gas furnace of the same capacity.

The production process of Armstrong was highly automated. The principal use of labor is in the cutting and packaging of glass, as in most glass plants.

Product

Armstrong produced ordinary (clear) flat rolled glass by the continuous process. The glass, of simple soda-lime composition,

* * *

The great bulk of Armstrong glass was intended for bath or shower enclosures and was produced in thicknesses of 3/16 inch to 7/32 inch. Only a small portion of its glass was used in greenhouses and jalousie louvres. The increasing number of States with legislation requiring safety glazing materials for such uses was a competitive handicap for Armstrong, which had no facilities for tempering glass and had to rely on outside sources, including competitors, for this operation.

Production and sales

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# STATISTICAL APPENDIX

Table 1.--Rolled glass: U.S. rates of duty, statutory rates and trade-agreement rates on Aug. 31, 1963, Jan. 1, 1971, and Jan. 1, 1972, imports for consumption in 1970, and calculated duty at the 1972 rates

| TSUS item | Article | Statutory rate 1/ | Aug. 31, 1963, rate | Jan. 1, 1971, rate 2/ | Jan. 1, 1972, rate 2/ | 1970 imports | Calculated duty at the 1972 rate | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Amount | Ad valorem equivalent |
| | Glass (whether or not containing wire netting), in rectangles, not ground, not polished and not otherwise processed, weighing over 4 oz. per sq. ft.: | | | | | 1,000 dollars | 1,000 dollars | Percent |
| | Cast or rolled glass: | | | | | | | |
| 541.11 | Ordinary glass | 1.5¢ per lb. | 0.625¢ per lb. | 0.35¢ per lb. | 0.3¢ per lb. | 1,800 | 79 | 4.4 |
| | Colored or special glass: | | | | | | | |
| 541.21 | Opaque and measuring over 15/64 inch in thickness. | 5.5¢ per lb. | 1.2¢ per lb. | 0.7¢ per lb. | 0.6¢ per lb. | 17 | 1 | 4.7 |
| 541.31 | Opaque and measuring not over 15/64 inch in thickness, or not opaque and of any thickness. | 1.5¢ per lb. + 5% ad val. | 0.625¢ per lb. + 2.5% ad val. | 0.35¢ per lb. + 1.5% ad val. | 0.3¢ per lb. + 1% ad val. | 964 | 30 | 3.1 |

1/ Rates of duty currently applicable to products of countries or areas designated as Communist dominated or controlled.

2/ Rates established pursuant to concessions granted in the 1964-67 trade Conference (Kennedy Round).

Table 2.--Rolled glass: Shipments by U.S. producers, U.S. exports of domestic merchandise, U.S. imports for consumption, and apparent consumption, 1967-70, January-June 1970, and January-June 1971

| Item | 1967 1/ | 1968 1/ | 1969 | 1970 | Jan.-June 1970 | Jan.-June 1971 |
|---|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | | |
| Shipments by U.S. producers | 134,589 | 152,621 | 166,847 | 166,692 | 83,765 | 79,393 |
| U.S. exports | 4,177 | 6,001 | 7,530 | 5,055 | 3,146 | 2,023 |
| U.S. imports for consumption: | | | | | | |
| At most-favored-nation rates of duty | 52,877 | 60,726 | 44,331 | 33,157 | 15,455 | 15,967 |
| At full rates of duty | 1,591 | 536 | 406 | 248 | 248 | 9 |
| Total (all rates of duty) | 54,468 | 61,262 | 44,737 | 33,405 | 15,703 | 15,976 |
| Apparent U.S. consumption | 184,880 | 207,882 | 204,054 | 195,042 | 96,322 | 93,346 |
| | Percent of U.S. consumption | | | | | |
| Shipments 2/ by U.S. producers | 70.5 | 70.5 | 78.1 | 82.9 | 83.7 | 82.9 |
| U.S. imports for consumption: | | | | | | |
| At most-favored-nation rates of duty | 28.6 | 29.2 | 21.7 | 17.0 | 16.0 | 17.1 |
| At full rates of duty | .9 | .3 | .2 | .1 | .3 | 3/ |
| Total (all rates of duty) | 29.5 | 29.5 | 21.9 | 17.1 | 16.3 | 17.1 |

1/ Revised.
2/ Less exports.
3/ Less than 0.05 percent.

Source: Compiled from official statistics of the U.S. Department of Commerce and from data submitted to the U.S. Tariff Commission by U.S. producers.

Table 3.--Rolled glass: U.S. production, intracompany transfers, factory shipments to customers, and closing inventory, 1967-70, January-June 1970, and January-June 1971

(In thousands of pounds)

| Item | 1967 1/ | 1968 1/ | 1969 | 1970 | Jan.-June 1970 | Jan.-June 1971 |
|---|---|---|---|---|---|---|
| Production | 142,555 | 146,543 | 154,979 | 166,655 | 85,994 | 73,261 |
| Intracompany transfers | 12,822 | 16,241 | 18,873 | 27,248 | 13,551 | 15,198 |
| Factory shipments to customers | 121,767 | 136,380 | 147,974 | 139,444 | 70,214 | 64,195 |
| Closing inventory | 52,936 | 53,089 | 40,867 | 36,423 | - | - |

1/ Revised.

Source: Computed from information submitted to the U.S. Tariff Commission by the U.S. producers.

Table 5.--Rolled glass: U.S. imports for consumption, by principal sources, 1967-70, January-June 1970, and January-June 1971

| Source | 1967 | 1968 | 1969 | 1970 | Jan.-June 1970 | Jan.-June 1971 |
|---|---|---|---|---|---|---|
| | Quantity (1,000 pounds) | | | | | |
| Belgium | 17,192 | 16,194 | 11,215 | 8,915 | 4,874 | 4,736 |
| West Germany | 5,417 | 6,225 | 7,105 | 4,915 | 2,216 | 2,587 |
| Japan | 12,678 | 14,739 | 9,782 | 5,476 | 1,734 | 2,443 |
| Republic of China (Taiwan) | 1,002 | 6,612 | 4,718 | 4,841 | 2,868 | 1,298 |
| United Kingdom | 3,462 | 3,960 | 3,408 | 2,056 | 506 | 815 |
| Poland | 11,991 | 11,133 | 7,336 | 3,664 | 1,742 | 1,258 |
| All other | 1,135 | 1,863 | 767 | 3,290 | 1,515 | 2,830 |
| Total | 52,877 | 60,726 | 44,331 | 33,157 | 15,455 | 15,967 |
| Communist countries (imports at statutory rates) | 1,591 | 536 | 406 | 248 | 248 | 9 |
| Grand total | 54,468 | 61,262 | 44,737 | 33,405 | 15,703 | 15,976 |
| | Value (1,000 dollars) | | | | | |
| Belgium | 1,334 | 1,316 | 1,066 | 948 | 502 | 484 |
| West Germany | 531 | 675 | 741 | 579 | 262 | 281 |
| Japan | 961 | 1,101 | 822 | 485 | 156 | 226 |
| Republic of China (Taiwan) | 55 | 307 | 232 | 234 | 135 | 58 |
| United Kingdom | 358 | 448 | 426 | 230 | 74 | 102 |
| Poland | 405 | 359 | 236 | 145 | 71 | 42 |
| All other | 57 | 98 | 66 | 151 | 75 | 123 |
| Total | 3,701 | 4,304 | 3,589 | 2,772 | 1,275 | 1,316 |
| Communist countries (imports at statutory rates) | 39 | 13 | 9 | 9 | 9 | 1 |
| Grand total | 3,740 | 4,317 | 3,598 | 2,781 | 1,284 | 1,317 |

Source: Compiled from official statistics of the U.S. Department of Commerce.