Flat Glass: 2002

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Current Industrial Reports

Current data are released electronically on Internet for all individual surveys as they become available. Use: http://www.census.gov/mcd/. Individual reports can be accessed by choosing "Current Industrial Reports (CIR)," clicking on "CIRs by Subsector;" then choose the survey of interest. Follow the menu to view the PDF file or to download the worksheet file (WK format) to your personal computer.

These data are also available on Internet through the U.S. Department of Commerce and STAT-USA by subscription. The Internet address is: www.stat-usa.gov/. Follow the prompts to register. Also, you may call 202-482-1986 or 1-800-STAT-USA, for further information.

SUMMARY OF FINDINGS. In 2002, 6.3 billion square feet of flat glass were produced

and 6.4 billion square feet of flat glass were shipped. The reported value of shipments was \$2.1 billion. Automotive glass accounted for 24.2 percent of production and 24.6 percent of shipments (in square footage) of flat glass.

In 2002, 5.1 billion square feet of flat glass were shipped out of float glass facilities for sale or further fabrication within a company. These external shipments accounted for 79.4 percent of the total quantity of shipments and 75.2 percent of the total value of shipments. Exports reported by flat glass manufacturers amounted to 438.2 million square feet, 6.8 percent of their total shipments.

For general CIR information, explanation of general terms and historical note, see the appendix.

Address inquiries concerning these data to Primary Goods Industries Branch, Manufacturing and Construction Division (MCD), Washington, DC 20233-6900, or call Tracy Palmer, 301-763-5163.

For mail or fax copies of this publication, please contact the Information Services Center, MCD, Washington, DC 20233-6900, or call 301-763-4673.



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Table 1. Summary of Flat Glass Shipments and Sales: 2000 to 2002

Product description	Shipments (includes quantity produced and consumed within each company)		Value of shipments		Quantity produced and consumed		
	Total (short tons)	Total (1,000 sq ft)	Current dollars (\$1,000)	Constant dollars 1/ (\$1.000)	within each company (1,000 sq ft)	Inventory (end of year) (1.000 sq ft)	Producer Price Index (1982=100.0)
2002	(SHOLL TOHS)	(1,000 sq 1t)	(\$1,000)	(\$1,000)	(1,000 sq 1t)	(1,000 sq 1t)	(1982–100.0)
Flat glass	5,281,329	6,443,574	2,054,272	2,192,393	1,296,057	745,755	93.7
Exports 2/ Outside customer sales 3/	433,430 4,015,111	438,239 5,114,245	169,185 1,544,859	180,560 1,648,729	(X) (X)	(X) (X)	93.7 93.7
2001							
Flat glass	5,260,040	6,380,598	2,090,593	2,177,701	1,329,047	900,790	96.0
Exports 2/ Outside customer sales 3/	344,512 r/ 3,878,576	379,542 5,011,594	140,434 1,510,184	146,285 1,573,108	(X) (X)	(X) (X)	96.0 96.0
2000							
Flat glass	5,461,566	6,586,773	2,152,363	2,265,645	1,313,511	893,485	95.0
Exports 2/ Outside customer sales 3/	371,486 4,253,192	403,441 5,092,110	154,457 1,594,701	162,586 1,678,633	(X) (X)	(X) (X)	95.0 95.0

r/Revised by 5 percent or more from previously published data. X Not applicable.

Note: Data for 2000 and 2001 are revised based on a reclassification of products from reporting establishments.

^{1/}Adjustments for price changes were made to the data using the producer price index for flat glass as published by the Bureau of Labor Statistics (BLS).

^{2/}Exports reported by flat glass manufacturers only.

^{3/}Shipments and sales to nonraw glass producing companies.

Table 2. Summary of Production, Shipments, and Inventories of Flat Glass: 2000 to 2002

Product code			Production No.		Shipments (includes quantity produced and consumed within each company)		Quantity produced and consumed within each company	Inventory
		cos.	Total (short tons)	Total (1,000 sq ft)	Total (short tons)	Total (1,000 sq ft)	(1,000 sq ft)	(end of year) (1,000 sq ft)
	2002							
3272111	Flat glass	6	5,266,299	6,289,224	5,281,329	6,443,574	1,296,057	745,755
	Automotive	(X)	1,150,864	1,521,160	1,194,790	1,583,235	821,054	231,721
3272111001	Standard greens/blue greens Less than 2.9 mm thick		358,409 186,687	498,917 332,527	352,373 183,500	501,838 325,877	(D) (D)	68,485 (D)
3272111006	2.9 mm or thicker High performance greens/blue greens/		171,722	166,390	168,873	175,961	(D)	(D)
3272111011	blues Less than 2.9 mm thick		488,758 (D)	716,573 (D)	520,509 (D)	754,772 (D)	(D) (D)	97,633 (D)
3272111016	2.9 mm or thicker Privacy (high performance uncoated	4	(D)	(D)	(D)	(D)	(D)	(D)
3272111021	dark gray) and other automotive Privacy (high performance uncoated	(X)	303,697	305,670	321,908	326,625	171,059	65,603
3272111026	dark gray) Other automotive	4	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
3272111020	Nonautomotive	(X)	4,115,435	4,768,064	4,086,539	4,860,339	475,003	514,034
			202,222	204,060	213,293	203,847	47 3,003 (D)	50,118
3272111031 3272111036	Pyrolytically coated Greens/blue greens/blues All other nonautomotive pyrolytically	3	(D)	(D)	(D)	(D)	(D)	(D)
	coated Nonautomotive other than pyrolytically coated:	4	(D)	(D)	(D)	(D)	(D)	(D)
3272111041 3272111046	Clear Less than 5.0 mm thick 5.0 mm or thicker		3,586,039 2,533,601 1,052,438	4,264,007 3,549,926 714,081	3,518,542 2,488,852 1,029,690	4,343,183 3,574,542 768,641	458,983 (D) (D)	361,085 303,128 57,957
	Greens/blue greens/blues	(X)	127,420	123,571	131,012	123,009	(D)	32,924
3272111051 3272111056	Less than 5.0 mm thick	5	40,860 86,560	(D) (D)	43,458 87,554	(D) (D)	(D) (D)	11,276 21,648
	All bronze		70,404	58,701	79,296	65,645	(D)	25,866
3272111061 3272111066	Less than 5.0 mm thick		17,131 53,273	20,843 37,858	17,718 61,578	21,783 43,862	(D) (D)	(D) (D)
3272111071	All gray and otherAll gray, less than 5.0 mm thick		129,350 40,527	117,725 52,845	144,396 46,415	124,655 54,005	(D) (D)	44,041 18,995
3272111076 3272111081	All gray, 5.0 mm or thicker Other, less than 5.0 mm thick	5	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
3272111081	Other, 5.0 mm or thicker		(D)	(D)	(D)	(D)	(D)	(D)
3272115097	Heat-treated flat glass for nonautomotive uses, treated in primary glass manufacturing plants 1/	3	331,168	387,241	323,191	384,038	(D)	(D)
	2001	3	331,100	307,241	323,131	304,030	(D)	(D)
3272111		6	5,417,006	6 202 072	5 260 040	6 290 509	1 220 047	900,790
32/2111	Flat glass		, ,	6,392,073	5,260,040	6,380,598	1,329,047	
	Automotive	` ,	1,238,447	1,673,067	1,218,065	1,649,710	897,156	293,715
3272111001 3272111006	Standard greens/blue greens Less than 2.9 mm thick	4	r/ 308,720 r/ 197,455 r/ 111,265	r/ 462,544 r/ 347,689 r/ 114,855	r/ 307,268 r/ 196,404 r/ 110,864	r/ 467,523 r/ 351,154 r/ 116,369	(D) (D) (D)	r/ 71,323 (D) (D)
	High performance greens/blue greens/ blues	` '	r/ 611,297	r/ 879,952	r/ 597,578	r/ 858,837	(D)	r/ 135,832
3272111011 3272111016	Less than 2.9 mm thick 2.9 mm or thicker Privacy (high performance uncoated		(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
3272111021	dark gray) and other automotive Privacy (high performance uncoated	(X)	318,430	330,571	313,219	323,350	155,292	86,560
3272111021	dark gray) Other automotive	4	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
	Nonautomotive	(X)	4,178,559	4,719,006	4,041,975	4,730,888	431,891	607,075
3272111031	Pyrolytically coatedGreens/blue greens/blues		225,689 (D)	213,887 (D)	216,685 (D)	209,050 (D)	(D) (D)	49,904 (D)
3272111031	All other nonautomotive pyrolytically coated	4	(D)	(D)	(D)	(D)	(D)	(D)
		•	(5)	(5)	(5)	(5)	(5)	(D)

Continued 1

Table 2. Summary of Production, Shipments, and Inventories of Flat Glass: 2000 to 2002

Product code			Produ	Production		Shipments (includes quantity produced and consumed within each company)		Inventory
		No. of cos.	Total (short tons)	Total (1,000 sq ft)	Total (short tons)	Total (1,000 sq ft)	within each company (1,000 sq ft)	(end of year) (1,000 sq ft)
	Nonautomotive other than pyrolytically coated:							
3272111041 3272111046	Clear Less than 5.0 mm thick 5.0 mm or thicker	(X) 5 5	3,558,644 2,482,711 1,075,933	4,151,176 3,440,958 710,218	3,436,983 2,385,932 1,051,051	4,178,090 3,460,971 717,119	414,922 369,895 45,027	440,259 327,742 112,517
3272111051 3272111056	Greens/blue greens/blues Less than 5.0 mm thick 5.0 mm or thicker	(X) 5 5	148,170 46,613 101,557	138,971 66,982 71,989	137,015 43,237 93,778	127,573 63,170 64,403	(D) (D) (D)	32,362 11,614 20,748
3272111061 3272111066	All bronze Less than 5.0 mm thick 5.0 mm or thicker	(X) 5 4	97,286 23,383 73,903	82,239 29,071 53,168	96,119 21,211 74,908	81,587 27,836 53,751	(D) (D) (D)	32,788 (D) (D)
3272111071 3272111076 3272111081 3272111086	All gray and other	(X) 5 5 2 3	148,770 44,325 (D) (D) (D)	132,733 56,499 (D) (D) (D)	155,173 43,366 (D) (D) (D)	134,588 53,424 (D) (D) (D)	(D) (D) (D) (D) (D)	51,762 20,153 (D) (D) (D)
3272115097	Heat-treated flat glass for nonautomotive uses, treated in primary glass manufacturing plants 1/	3	318,501	355,316	295,218	351,605	(D)	(D)
	2000							
3272111	Flat glass	6	5,618,014	6,677,244	5,461,566	6,586,773	1,313,511	893,485
	Automotive	(X)	1,377,065	1,813,287	1,351,129	1,804,043	858,225	274,412
3272111001 3272111006	Standard greens/blue greens Less than 2.9 mm thick 2.9 mm or thicker High performance greens/blue greens/	(X) 5 5	r/ 400,007 r/ 256,600 r/ 143,407	r/ 606,302 r/ 457,860 r/ 148,442	r/ 400,930 r/ 259,374 r/ 141,556	r/ 614,715 r/ 465,244 r/ 149,471	(D) (D) (D)	r/ 76,588 r/ 44,882 r/ 31,706
3272111011 3272111016	blues Less than 2.9 mm thick 2.9 mm or thicker Privacy (high performance uncoated	(X) 3 3	r/ 629,007 (D) (D)	r/ 842,765 (D) (D)	r/ 624,536 (D) (D)	r/ 848,622 (D) (D)	(D) (D) (D)	r/ 116,654 (D) (D)
3272111021	dark gray) and other automotive Privacy (high performance uncoated	(X)	348,051	364,220	325,663	340,706	164,231	81,170
3272111026	dark gray) Other automotive	4 3	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)	(D) (D)
3272111031 3272111036	Nonautomotive	(X) (X) 3	4,240,949 223,194 25,485 197,709	4,863,957 214,033 16,994 197,039	4,110,437 212,645 29,579 183,066	4,782,730 207,301 20,733 186,568	455,286 (D) (D)	619,073 46,128 5,507 40,621
3272111041	coated: Clear	(X) 5	3,630,649 2,483,867	4,321,718 3,539,939	3,543,677 2,451,845	4,267,267 3,532,018	436,533 (D)	467,457 348,120
3272111046 3272111051 3272111056	5.0 mm or thicker	5 (X) 5 5	1,146,782 118,666 28,892 89,774	781,779 102,164 41,547 60,617	1,091,832 120,819 29,049 91,770	735,249 107,281 41,095 66,186	(D) (D) (D) (D)	119,337 21,668 7,819 13,849
3272111030 3272111061 3272111066	All bronze	(X) 5 5	106,085 20,390 85,695 162,355	84,147 23,184 60,963 141,895	91,748 18,660 73,088 141,548	74,918 24,660 50,258 125,963	(D) (D) (D) (D)	31,098 (D) (D) 52,722
3272111071 3272111076 3272111081 3272111086 3272111097	All gray, less than 5.0 mm thick	5 5 2 2	43,339 (D) (D) (D)	55,303 (D) (D) (D)	45,769 (D) (D) (D)	56,409 (D) (D) (D)	(D) (D) (D) (D)	16,814 (D) (D) (D)
	uses, treated in primary glass manufacturing plants 1/	3	332,395	382,674	323,513	382,746	(D)	(D)

D Withheld to avoid disclosing data for individual companies. X Not applicable.

Continued 2

 $^{1/}Glass\ reported\ in\ this\ category\ represents\ the\ portion\ of\ nonautomotive\ flat\ glass\ that\ has\ been\ heat\ treated.$

Note: Data for 2000 and 2001 are revised based on a reclassification of products from reporting establishments. Data are limited to inventories at manufacturing establishments.

Table 3. Value of Shipments, Exports, and Imports of Flat Glass: 2002 and 2001 [Thousands of dollars]

Product description	Manufacturers' shipments (f.o.b. plant) 1/	Exports of domestic merchandise 2/3/ (value at port)	Percent of exports to manufacturers' shipments	Imports for consumption 4/ (value at port)	Apparent consumption 5/	Percent imports to apparent consumption
2002						
Total flat glass	2,054,272	514,184	25.0	161,431	1,701,519	9.5
2001						
Total flat glass	2,090,593	509,728	24.4	170,952	1,751,817	9.8

^{1/}The value of "Manufacturers' shipments" is in current dollars.
2/For a comparison of North American Industry Classification System (NAICS)-based product codes with Schedule B export codes and HTSUSA import codes, see Table 4.
3/Source: Census Bureau report EM 545, U.S. Exports.

^{4/}Source: Census Bureau report IM 145, U.S. Imports for Consumption.

^{5/}Apparent consumption is derived by subtracting exports from the total of manufacturers' shipments plus imports, including duty.

Table 4. Comparison of North American Industry Classification System (NAICS)-Based Product Codes with Schedule B Export Codes and HTSUSA Import Codes: 2002

Product code	Product description	Export code 1/	Import code 2/
3272111	Glasssheet, plate, float	7003.12.0000 7003.19.0000	7003.12.0000 7003.19.0000
		7004.20.0000	7004.20.1000 7004.20.2010 7004.20.2020 7004.20.5000
		7004.90.0000	7004.90.0500 7004.90.1000 7004.90.1500 7004.90.2000 7004.90.2510 7004.90.2550 7004.90.3010 7004.90.3020 7004.90.3050 7004.90.4000 7004.90.5000
		7005.10.0000	7005.10.4000 7005.10.8000
		7005.21.0000	7005.21.1010 7005.21.1030 7005.21.2000
		7005.29.0000	7005.29.0410 7005.29.0450 7005.29.0810 7005.29.0850 7005.29.1410 7005.29.1450 7005.29.1810 7005.29.1850 7005.29.2500

1/Source: 2002 edition, Harmonized System-based Schedule B Statistical Classification of Domestic and Foreign Commodities Exported from the United States.

2/Source: Harmonized Tariff Schedule of the United States, Annotated (2002).

Appendix.

General CIR Survey Information, Explanation of General Terms and Historical Note

GENERAL

The CIR program has been providing monthly, quarterly, and annual measures of industrial activity for many years. Since 1904, with its cotton and fats and oils surveys, the CIR program has formed an essential part of an integrated statistical system involving the quinquennial economic census, manufacturing sector, and the annual survey of manufactures. The CIR surveys, however, provide current statistics at a more detailed product level than either of the other two statistical programs.

The primary objective of the CIR program is to produce timely, accurate data on production and shipments of selected products. The data are used to satisfy economic policy needs and for market analysis, forecasting, and decision making in the private sector. The product-level data generated by these surveys are used extensively by individual firms, trade associations, and market analysts in planning or recommending marketing and legislative strategies, particularly if their industry is significantly affected by foreign trade. Although production and shipments information are the two most common data items collected, the CIR program collects other measures also such as inventories, orders, and consumption. These surveys measure manufacturing activity in important commodity areas such as textiles and apparel, chemicals, primary metals, computer and electronic components, industrial equipment, aerospace equipment, and consumer goods.

The CIR program uses a unified data collection, processing, and publication system. The U.S. Census Bureau updates the survey panels for most reports annually and reconciles the estimates to the results of the broader-based annual survey of manufactures and the economic census, manufacturing sector. The manufacturing sector provides a complete list of all producers of the products covered by the CIR program and serves as the primary source for CIR sampling. Where a small number of producers exist, CIR surveys cover all known producers of a product. However, when the number of producers is too large, cutoff and random sampling techniques are used. Surveys are continually reviewed and modified to provide the most up-to-date information on products produced. The CIR program includes a group of mandatory and voluntary surveys. Typically the monthly and quarterly surveys are conducted on a voluntary basis. Those companies that choose not to respond to the voluntary surveys are required to submit a mandatory annual counterpart corresponding to the more frequent survey.

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS), 1997

The adoption of the North American Industry Classification System (NAICS) in the 1997 Economic Census has had a major impact on the comparability of current and historic data. Approximately half of the industries in the manufacturing sector of NAICS do not have comparable industries in the Standard Industrial Classification (SIC) system that was used in the past.

While most of the change affecting the manufacturing sector was change within the sector, some industries left manufacturing and others came into manufacturing. Prominent among those that left manufacturing are logging and portions of publishing. Prominent among the industries that came into the manufacturing sector are bakeries, candy stores where candy is made on the premises, custom tailors, makers of custom draperies, and tire retreading. The net effect of the classification changes are such that if the 1997 value of shipments data for all manufacturers were tabulated on an SIC basis, it would be approximately 3 percent higher.

Listed below are the NAICS sectors:

- 21 Mining
- 22 Utilities
- 23 Construction
- 31-33 Manufacturing
- 42 Wholesale Trade
- 44-45 Retail Trade
- 48-49 Transportation and Warehousing
- 51 Information
- 52 Finance and Insurance
- 53 Real Estate and Rental and Leasing
- 54 Professional, Scientific, and Technical Services
- 55 Management of Companies and Enterprises
- 56 Administrative and Support and Waste Management and Remediation Services
- 61 Educational Services
- 62 Health Care and Social Assistance
- 71 Arts, Entertainment, and Recreation
- 72 Accommodation and Food Services
- 81 Other Services (except Public Administration)

(Not listed above are the Agriculture, Forestry, Fishing, and Hunting sector (NAICS 11), partially covered by the census of agriculture conducted by the U.S. Department of Agriculture, and the Public Administration sector (NAICS 92), covered by the census of governments conducted by the Census Bureau.)

The 20 NAICS sectors are subdivided into 96 subsectors (three-digit codes), 313 industry groups (four-digit codes), and, as implemented in the United States, 1170 industries (five- and six-digit codes).

FUNDING

The Census Bureau funds most of the surveys. However, a number of surveys are paid for either fully or partially by other Federal Government agencies or private trade associations. A few surveys are mandated, but all are authorized by Title 13 of the United States Code.

RELIABILITY OF DATA

Survey error may result from several sources including the inability to obtain information about all cases in the survey, response errors, definitional difficulties, differences in the interpretation of questions, mistakes in recording or coding the reported data, and other errors of collection, response, coverage, and estimation. These nonsampling errors also occur in complete censuses. Although no direct measurement of the biases due to these nonsampling errors has been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data in an effort to minimize their influence.

A major source of bias in the published estimates is the imputing of data for nonrespondents, for late reporters, and for data that fail logic edits. Missing figures are imputed based on period-to-period movements shown by reporting firms. A figure is considered to be an impute if the value was not directly reported on the questionnaire, directly derived from other reported items, directly available from supplemental sources, or obtained from the respondent during the analytical review phase. Imputation generally is limited to a maximum of 10 percent for any one data cell. Figures with imputation rates greater than 10 percent are suppressed or footnoted. The imputation rate is not an explicit indicator of the potential error in published figures due to nonresponse, because the actual yearly movements for nonrespondents may or may not closely agree with the imputed movements. The range of difference between the actual and imputed figures is assumed to be small. The degree of uncertainty regarding the accuracy of the published data increases as the percentage of imputation increases. Figures with imputation rates above 10 percent should be used with caution.

DATA REVISIONS

Statistics for previous years may be revised as the result of corrected figures from respondents, late reports for which imputations were originally made, or other corrections. Data that have been revised by more than 5 percent from previously published data are indicated by footnotes.

DISCLOSURE

The Census Bureau collects the CIR data under the authority of Title 13, United States Code, which specifies that the information can only be used for statistical purposes and cannot be published or released in any manner that would identify a person, household, or establishment. "D" indicates that data in the cell have been suppressed to avoid disclosure of information pertaining to individual companies.

EXPLANATION OF GENERAL TERMS

Capacity. The maximum quantity of a product that can be produced in a plant in 1 day if operating for 24 hours. Includes the capacity of idle plants until the plant is reported to be destroyed, dismantled, or abandoned.

Consumption. Materials used in producing or processing a product or otherwise removing the product from the inventory.

Exports. Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries.

Gross shipments. The quantity or value of physical shipments from domestic establishments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale or use. Shipments of products purchased for resale are omitted. Shipments of products made under toll arrangements are included.

Interplant transfers. Shipments to other domestic plants within a company for further assembly, fabrication, or manufacture.

Inventories. The quantity or value of finished goods, work in progress, and materials on hand.

Machinery in place. The number of machines of a particular type in place as of a particular date whether the machinery was used for production, prototype, or sampling, or was idle. Machinery in place includes all machinery set up in operating positions.

Net receipts. Derived by subtracting the materials held at the end of the previous month from the sum of materials used during the current month.

Production. The total volume of products produced, including: products sold; products transferred or added to inventory after adjustments for breakage, shrinkage, and obsolescence, plus any other inventory adjustment; and products that undergo further manufacture at the same establishment.

Quantities produced and consumed. Quantities of each type of product produced by a company for internal consumption within that same company.

Quantity and value of new orders. The sales value of orders received during the current reporting period for products and services to be delivered immediately or at some future date. Also represents the net sales value of contract change documents that increase or decrease the sales value of the orders to which they are related, when the parties concerned are in substantial agreement as to the amount involved. Included as orders are only those that are supported by binding legal documents such as signed contracts or letter contracts.

Quantity and value of shipments. The figures on quantity and value of shipments represent physical shipments of all products sold, transferred to other establishments of the same company, or shipped on consignment, whether for domestic or export sale. The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and

returns. Shipments to a company's own branches are assigned the same value as comparable appropriate allocation of company overhead and profit. Products bought and resold without further manufacture are excluded.

Stocks. Total quantity of ending finished inventory.

Unfilled orders (backlog). Calculated by adding net new orders and subtracting net sales from the backlog at the end of the preceding year.

HISTORICAL NOTE

Data on flat glass have been collected by the Census Bureau since 1957. Historical data may be obtained from Current Industrial Reports (called Facts for Industry before 1959) available at your local Federal Depository Library.