

Laminated Aluminum Foil Manufacturing for Flexible Packaging Uses: 2002

Issued December 2004

EC02-311-322225 (RV)

2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



CONTENTS

Introduction to the Economic Census	v
Manufacturing	ix
Tables	
1. Historical Statistics for the Industry: 2002 and Earlier Years ...	1
2. Industry Statistics for Selected States: 2002	2
3. Detailed Statistics by Industry: 2002	3
4. Industry Statistics by Employment Size: 2002.....	4
5. Industry Statistics by Primary Product Class Specialization: 2002	5
6a. Products Statistics: 2002 and 1997	6
6b. Product Class Shipments for Selected States: 2002 and 1997 .	--
7. Materials Consumed by Kind: 2002 and 1997.....	8
Appendixes	
A. Explanation of Terms	A-1
B. NAICS Codes, Titles, and Descriptions	B-1
C. Methodology	C-1
D. Geographic Notes	--
E. Metropolitan and Micropolitan Statistical Areas	--
F. Comparability of Product Classes and Product Codes: 2002 to 1997.....	F-1

-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com-panies ²	All estab-lish-ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)				
322225, Laminated aluminum foil manufacturing for flexible packaging uses											
2002..	35	42	4 749	220 058	3 528	7 513	147 217	594 466	907 111	1 528 487	149 784
2001..	N	N	4 628	216 291	3 468	7 631	147 004	525 603	831 952	1 336 116	41 741
2000..	N	N	4 626	208 011	3 493	7 561	141 989	562 304	872 685	1 441 644	38 175
1999..	N	N	4 751	210 317	3 620	8 173	148 159	573 354	868 025	1 432 514	46 123
1998..	N	N	5 241	228 700	3 869	8 441	161 911	651 942	1 002 496	1 651 809	37 743
1997..	34	42	5 342	205 766	4 112	9 111	142 801	603 535	996 431	1 587 850	36 925

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
322225, Laminated aluminum foil manufacturing for flexible packaging uses												
United States	—	42	33	4 749	220 058	3 528	7 513	147 217	594 466	907 111	1 528 487	149 784
New Jersey	7	4	2	168	8 246	114	249	5 249	15 469	21 258	36 729	1 023
Wisconsin	—	3	3	428	21 852	309	699	14 023	49 708	67 238	116 246	2 445

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
322225, Laminated aluminum foil manufacturing for flexible packaging uses	
Companies ¹	number.. 35
All establishments ²	number.. 42
Establishments with 1 to 19 employees	number.. 9
Establishments with 20 to 99 employees	number.. 19
Establishments with 100 employees or more	number.. 14
All employees ³	number.. 4 749
Total compensation	\$1,000.. 297 343
Annual payroll	\$1,000.. 220 058
Total fringe benefits	\$1,000.. 77 285
Production workers, average for year	number.. 3 528
Production workers on March 12	number.. 3 625
Production workers on May 12	number.. 3 526
Production workers on August 12	number.. 3 475
Production workers on November 12	number.. 3 474
Production worker hours	1,000.. 7 513
Production worker wages	\$1,000.. 147 217
Total cost of materials	\$1,000.. 907 111
Materials, parts, containers, packaging, etc., used	\$1,000.. 858 860
Resales	\$1,000.. 12 946
Purchased fuels	\$1,000.. 10 113
Purchased electricity	\$1,000.. 14 996
Contract work	\$1,000.. 10 196
Quantity of electricity purchased for heat and power	1,000 kWh.. 261 888
Quantity of electricity generated less sold for heat and power	1,000 kWh.. -
Total value of shipments	\$1,000.. 1 528 487
Primary products value of shipments	\$1,000.. 1 125 346
Secondary products value of shipments	\$1,000.. 379 510
Total miscellaneous receipts	\$1,000.. 23 631
Value of resales	\$1,000.. 17 737
Contract receipts	\$1,000.. D
Other miscellaneous receipts	\$1,000.. D
Primary products specialization ratio	percent.. 75
Value of primary products shipments made in all industries	\$1,000.. 1 382 542
Value of primary products shipments made in this industry	\$1,000.. 1 125 346
Value of primary products shipments made in other industries	\$1,000.. 257 196
Coverage ratio	percent.. 81
Value added	\$1,000.. 594 466
Total inventories, beginning of year	\$1,000.. 205 267
Finished goods inventories	\$1,000.. 90 984
Work-in-process inventories	\$1,000.. 40 917
Materials and supplies inventories	\$1,000.. 73 366
Total inventories, end of year	\$1,000.. 196 697
Finished goods inventories	\$1,000.. 75 687
Work-in-process inventories	\$1,000.. 29 304
Materials and supplies inventories	\$1,000.. 91 706
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 733 133
Total capital expenditures (new and used)	\$1,000.. 149 784
Buildings and other structures (new and used)	\$1,000.. 1 988
Machinery and equipment (new and used)	\$1,000.. 147 796
Automobiles, trucks, etc., for highway use	\$1,000.. 1210
Computers and peripheral data processing equipment	\$1,000.. 955
All other expenditures for machinery and equipment	\$1,000.. 146 631
Total retirements	\$1,000.. 16 943
Gross value of depreciable assets at end of year	\$1,000.. 765 974
Depreciation charges during year	\$1,000.. 140 358
Total rental payments	\$1,000.. 10 055
Buildings and other structures	\$1,000.. 5 754
Machinery and equipment	\$1,000.. 4 301
Total other expenses ⁴	\$1,000.. 73 952
Response coverage ratio ⁵	percent.. 92
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 23 347
Communications services ⁴	\$1,000.. 1 231
Legal services ⁴	\$1,000.. 703
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 507
Advertising and promotional services ⁴	\$1,000.. 636
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 1 552
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 2 966
Management consulting and administrative services ⁴	\$1,000.. 7 287
Taxes and license fees ⁴	\$1,000.. 2 850
All other expenses ⁴	\$1,000.. 32 874

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on 2002 Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
322225, Laminated aluminum foil manufacturing for flexible packaging uses											
All establishments	—	42	4 749	220 058	3 528	7 513	147 217	594 466	907 111	1 528 487	'49 784
Establishments with—											
1 to 4 employees	9	2	a	D	D	D	D	D	D	D	D
5 to 9 employees	9	5	29	1 213	20	43	764	2 531	3 014	5 572	'141
10 to 19 employees	9	2	b	D	D	D	D	D	D	D	D
20 to 49 employees	1	9	e	D	D	D	D	D	D	D	D
50 to 99 employees	1	10	746	34 582	528	1 157	22 751	105 601	148 045	255 900	'6 122
100 to 249 employees	1	9	1 272	61 576	907	2 048	39 628	183 885	320 313	508 079	'19 468
250 to 499 employees	—	4	1 291	51 432	1 060	2 325	39 825	136 275	231 947	375 359	7 933
500 to 999 employees	—	—	—	—	—	—	—	—	—	—	—
1,000 to 2,499 employees	—	1	g	D	D	D	D	D	D	D	D
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	9	134	6 084	100	233	4 125	13 009	16 625	29 634	'635

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
322225	Laminated aluminum foil manufacturing for flexible packaging uses	42	4 749	220 058	3 528	7 513	147 217	594 466	907 111	1 528 487	'49 784
3222250	Laminated aluminum foil rolls and sheets for flexible packaging uses (converting and printing or converting only)	42	4 749	220 058	3 528	7 513	147 217	594 466	907 111	1 528 487	'49 784

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments		
				Quantity	Value (\$1,000)	
322225	Laminated aluminum foil manufacturing for flexible packaging uses	2002..	N	X	X	1 382 542
		1997..	N	X	X	1 411 708
3222250	Laminated aluminum foil rolls and sheets for flexible packaging uses (converting and printing or converting only)	2002..	N	X	X	1 382 542
		1997..	N	X	X	1 411 708
32222501	Laminated aluminum film/foil (without paper) multiweb combinations, rolls and sheets for flexible packaging uses	2002..	N	X	X	499 379
		1997..	N	X	X	444 679
3222250101	Laminated aluminum film/foil (without paper) multiweb combinations, rolls and sheets for flexible packaging uses	mil lb. 2002..	31	X	S	499 379
		1997..	26	X	S	444 679
32222502	Extrusion laminated aluminum foil/paper combinations, rolls and sheets for flexible packaging uses	2002..	N	X	X	232 963
		1997..	N	X	X	226 872
3222250206	Extrusion laminated aluminum foil/paper combinations, rolls and sheets for flexible packaging uses	mil lb. 2002..	17	X	P96.1	232 963
		1997..	21	X	94.9	226 872
32222503	Adhesive or wax laminated aluminum foil/paper combinations, rolls and sheets for flexible packaging uses	2002..	N	X	X	312 660
		1997..	N	X	X	368 136
3222250311	Adhesive or wax laminated aluminum foil/paper combinations, rolls and sheets for flexible packaging uses	mil lb. 2002..	17	X	P179.8	312 660
		1997..	19	X	P184.1	368 136
32222505	Other laminated aluminum foils, including laminated aluminum paper/poly and foil/poly combinations (including foil/foil), rolls and sheets for flexible packaging uses	2002..	N	X	X	279 811
		1997..	N	X	X	N
3222250516	Other laminated aluminum foils, including laminated aluminum paper/poly and foil/poly combinations (including foil/foil), rolls and sheets for flexible packaging uses	mil lb. 2002..	18	X	q131.6	279 811
		1997..	N	X	N	N
3222250Y	Laminated aluminum foil rolls and sheets for flexible packaging uses, nsk, total	2002..	N	X	X	57 729
		1997..	N	X	X	26 084
3222250YWW	Laminated aluminum foil rolls and sheets for flexible packaging uses, nsk, for nonadministrative-record establishments	2002..	N	X	X	28 572
		1997..	N	X	X	23 723
3222250YWY	Laminated aluminum foil rolls and sheets for flexible packaging uses, nsk, for administrative-record establishments	2002..	N	X	X	29 157
		1997..	N	X	X	2 361

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Not applicable for this report.]

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
322225	Laminated aluminum foil manufacturing for flexible packaging uses		
00900001	Total materials	2002.. X	858 860
		1997.. X	958 272
32212006	Paper	2002.. X	175 452
		1997.. X	N
33131507	Aluminum and aluminum-base alloy plain foil..... mil lb..	2002.. P83.3	112 401
		1997.. P82.0	120 025
32222503	Converted aluminum foil (quantity represents metal content)..... mil lb..	2002.. P56.2	93 289
		1997.. P82.9	135 996
33200089	Other fabricated metal products (excluding forgings)..... mil lb..	2002.. D	D
		1997.. D	D
32521115	Plastics resins (excluding vinyl) consumed in the form of granules, pellets, powders, liquids, etc.....	2002.. X	65 382
		1997.. X	N
32610013	Plastics products consumed in the form of sheets, rods, tubes, film, and other shapes.....	2002.. X	143 730
		1997.. X	250 395
32500069	Other chemicals and allied products..... mil lb..	2002.. D	D
		1997.. D	D
32552005	Glues and adhesives, including synthetic resin adhesives..... mil lb..	2002.. P39.1	43 624
		1997.. P30.3	39 737
32591003	Printing inks..... mil lb..	2002.. P24.9	45 691
		1997.. 27.6	57 721
32221001	Paperboard containers, boxes, and corrugated paperboard.....	2002.. X	8 394
		1997.. X	N
00970099	All other materials and components, parts, containers, and supplies.....	2002.. X	107 467
		1997.. X	265 559
00971000	Materials, ingredients, containers, and supplies, nsk.....	2002.. X	35 001
		1997.. X	21 550

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.