

Mineral Industry Surveys

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TIN IN NOVEMBER 2001

Domestic consumption of primary tin in November was estimated by the U.S. Geological Survey to be 2% lower than that in October and 2% lower than that of November 2000.

The Platts Metals Week average composite price for tin in November was \$2.87 per pound, 6% higher than that in October and 20% lower than that in November 2000.

There was a marked decline in the price of tin during 2001. In early August, for example, the London Metal Exchange (LME) tin price plunged to the lowest level seen since the tin contract was reintroduced to the exchange in 1989. At the start of 2001, some observers expected weaker prices when LME tin stocks rose to 12,885 metric tons (t) in January, up 40% from a year earlier. LME tin stocks continued to climb throughout the year, standing at 20,735 t by mid-September, a 60% increase. Industry observers believe that the causes for the year-long price decline are twofold: insufficient production cutbacks by the world's tin miners and smelters left the global market with an excess of tin; and a sharp worldwide decline in "high tech" industries, many of which are solder consumers for electronics, slackened demand (Metal Bulletin Monthly, 2001b).

Shipments of steel mill products in the United States totaled 103 million metric tons (Mt) in 2000. In total, tin mill products represented 3.4% of total steel shipments, according to the American Iron and Steel Institute. More recent figures show domestic tinplate production in the first half of 2001 was 1,024,000 t, a marked drop of 11.4% from the same period in 2000.

The capacity of domestic tinplate and tin free steel producers are:

- a) National Steel Corp. (Portage, IN); 950,000 tons per year (t/yr)
- b) Weirton Steel Corp. (Weirton, WV); 900,000 t/yr
- c) U.S. Steel Corp. (Gary, IN); 660,000 t/yr
U.S. Steel Corp. (E. Chicago, IN); 540,000 t/yr
- d) U.S.S./Posco (Pittsburgh, CA); 530,000 t/yr
- e) Bethlehem Steel Corp. (Sparrows Point, MD); 450,000

t/yr

- f) Ohio Coating Corp. (Yorkville, OH); 250,000 t/yr.

Recent tinplate producers who are currently in Chapter 11 bankruptcy protection include LTV Steel Corp. (which sold its two tin mills to U.S. Steel Corp. in late 2000), Bethlehem Steel Corp., and Wheeling-Pittsburgh Steel Corp.

In 2001, U.S. Steel Corp., the Nation's largest tin mill operator, announced the closure of its tin mill at the Fairless Works near Philadelphia, PA. That tin mill had a capacity of 250,000 t/yr. In addition, U.S. Steel Corp. shut down one of the two tin mills it acquired from LTV (the Aliquippa, PA, facility). Industry observers tend to look favorably on these closures because they represent a long-needed reduction of capacity (Metal Bulletin Monthly, 2001a).

Midco Industries Co., a secondary tin and lead producer, closed its operation indefinitely at yearend 2001. The privately owned company, based in St. Louis, MO, was dependent on Chemetco Corp. (IL) for feedstock, but Chemetco filed for Chapter 7 bankruptcy liquidation on November 11 and thus no longer could supply secondary raw materials to Midco. Midco typically produced about 300 metric tons per month (t/mo) of Grade A and low-lead tin and 600 t/mo of lead in ingot form (Platts Metals Week, 2001).

In England, it was announced that plans to reopen the South Crofty tin mine in Cornwall were proceeding despite declining tin prices. The new owners do not consider current tin prices critical because production would not commence for 2 more years. The new owners believe tin reserves at the mines are sufficient to produce 200,000 t/yr of tin ore (Metal Bulletin, 2001).

In China, the world's dominant tin producer, it was announced by Antaike (the information center of a Chinese nonferrous metals industry organization) that China's 2002 tin output is expected to be below 80,000 t because of a concentrate shortage. A major mining accident in Nandan County of the Guangxi Zhuang Autonomous Region in mid-

2001 led to the closure of local mines and a shortage of concentrate. Nandan County accounts for about 50% of China's tin concentrate output. Antaike indicated the mines could remain closed for much of 2002 before they meet safety regulations. China has a tin production capacity of 120,000 t/yr. Output in 2001 was estimated to be about 80,000 t, down from 100,000 t in 2000. Weak tin prices contributed to the decline in output. Antaike estimated China's commercially exploitable tin reserves at less than 1 Mt (Platts Metals Week, 2001).

Apeal, a European steel producers' association, reported that a total of 1.67 Mt of tinplate packaging was recycled in 2000. This represented a 15% increase over the 1999 total of 1.45 Mt. Effectively, the statistics indicate that one out of every two steel cans sold in Europe was recycled. The major contributors to the increase were: Spain, up 33%; the United Kingdom, up 34%; and Italy, up from a 9.5% rate to a 26% rate. Despite the successes in Luxembourg (a 93% rate), Germany and Austria (an 80% rate each), and Belgium and Holland (77%

rate each), Apeal believes Europe is unlikely to soon hit its target of a 50% recycling rate in every country (Canning and Filling, 2001).

Update

On January 4, 2002, the Platts Metals Week composite price for tin was \$2.80 per pound.

References Cited

- Canning and Filling, 2001, Steel recycling rises in Europe: Canning and Filling, December, p. 4.
Metal Bulletin, 2001, South Crofty reopening to go ahead despite tin lows: Metal Bulletin, no. 8630, December 3, p. 5.
Metal Bulletin Monthly, 2001a, Can the good times roll for US tinplate?: Metal Bulletin Monthly, issue 371, November, p. 28.
———2001b, Tin waits for a rebound: Metal Bulletin Monthly, issue 371, November, p. 12.
Platts Metals Week, 2001, U.S. secondary tin producer Midco shutting down: Platts Metals Week, v. 72, no. 50, December 10, p. 12.

TABLE 1
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	2001			
	2000	October	November	January- November
Production, secondary e/ 2/	15,100	900	900	9,900
Consumption:				
Primary	38,100	3,330	3,280	36,100
Secondary	8,940	867 r/	857	9,530
Imports for consumption, metal	44,900	2,040	NA	NA
Exports, metal	6,640	304	NA	NA
Stocks at end of period	10,400	7,630	7,470	XX
Prices (average cents per pound): 3/				
Metals Week composite 4/	370.16	270.42	287.17	XX
Metals Week New York dealer	254.92	178.11	190.88	XX
London, standard grade, cash	246.00	169.00	183.00	XX
Kuala Lumpur	244.12	165.27	178.48	XX

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices.

2/ Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

3/ Source: Platts Metals Week.

4/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

TABLE 2
METALS WEEK COMPOSITE PRICE 1/

(Cents per pound)

Period	High	Low	Average
2000:			
November	364.20	355.77	361.05
December	361.83	355.46	359.43
Year	405.27	355.46	370.16
2001:			
January	359.90	350.60	355.86
February	355.03	349.76	352.96
March	352.74	341.70	348.45
April	346.75	340.32	342.70
May	348.21	336.94	342.78
June	359.89	325.63	332.74
July	359.89	291.50	306.98
August	291.44	270.73	268.50
September	359.89	262.81	280.33
October	275.81	264.30	270.42
November	301.03	272.87	287.17

1/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It is normally substantially higher than other tin prices.

Source: Platts Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments 2/
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2000	W	1,720,000	8,990	5.2	2,290,000
2000:					
December	W	107,000	646	6.0	162,000
2001:					
January	W	W	710	7.3	179,000
February	W	92,800	679	7.3	160,000
March	W	102,000	663	6.5	167,000
April	W	90,700	698	7.7	162,000
May	W	88,900	679	7.6	181,000
June	W	80,600	666	8.3	175,000
July	W	80,300	514	6.4	167,000
August	W	W	511	6.2	185,000
September	W	W	531	6.1	160,000
October	W	W	551 r/	6.8	183,000
November	W	W	566	6.7	NA

r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to no more than three significant digits.

2/ Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	2000	2001		
		September	October	January- October
Imports:				
Metal (unwrought tin):				
Bolivia	6,330	430	215	5,180
Brazil	5,860	373	380	4,190
Chile	2,630	--	--	122
China	10,200	240	159	6,000
Hong Kong	397	--	--	20
Indonesia	5,320	140	180	3,280
Malaysia	214	1	140	363
Peru	12,800	285	900	11,200
Russia	145	--	--	141
Singapore	20	--	40	145
United Kingdom	514	--	--	118
Other	434	44	25	404
Total	44,900	1,510	2,040	31,200
Other (gross weight):				
Alloys	4,370	265 r/	217	3,000
Bars and rods	993	58	65	493
Foil, tubes, pipes	(2/)	(2/)	(2/)	1
Plates, sheets, strip	588	--	--	54
Waste and scrap	2,340	61	18	3,600
Miscellaneous	8,510	1,920	1,280	12,400
Total	16,800	2,300 r/	1,580	19,600
Exports (metal)	6,640	253	304	3,760

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

Product	2001							
	2000	October			November			January- November
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	W	128	W	128	123	W	123	1,380
Babbitt	1,510	24	W	24	24	W	24	314
Bar tin and anodes	714	21	W	21	21	W	21	228
Bronze and brass	1,450	106	127	233	98	116	214	2,450
Chemicals	8,040	668	W	668	668	W	668	7,350
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	12,700	1,070	394	1,460	1,030	394	1,420	15,200
Tinning	1,200	75	--	75	74	--	74	837
Tinplate 3/	8,800	551 r/	--	551 r/	566	--	566	6,770
Tin powder	W	W	W	W	W	W	W	W
White metal 4/	W	W	W	W	W	W	W	W
Other	3,640	84 r/	46 r/	130 r/	77	47	124	1,250
Total reported	38,100	2,730	567 r/	3,290	2,680	557	3,240	35,800
Estimated undistributed consumption 5/	--	600	300	900	600	300	900	9,900
Grand total	38,100 r/	3,330	867 r/	4,190	3,280	857	4,140	45,700

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes terne metal.

3/ Includes secondary pig tin and tin components of tinplating chemical solutions.

4/ Includes pewter, britannia metal, and jewelers' metal.

5/ Estimated consumption of plants reporting on an annual basis.