

# Mineral Industry Surveys

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## TIN IN MARCH 2002

Domestic consumption of primary tin in March was estimated by the U.S. Geological Survey to be just slightly lower than that in February and 5% lower than that in March 2001.

The Platts Metals Week average composite price for tin in March was \$2.79 per pound, an increase of 2% from that in February, and a decrease of 20% from that in March 2001.

The Steel Recycling Institute (Pittsburgh, PA) announced that the steel can recycling rate for North America remained at 58% in 2001, almost four times the rate in 1988. In the United States alone, over 202 million Americans have access to steel can recycling, whether it be through curbside collection, drop-off points, buy-back centers or because steel is magnetically separated for recycling at many resource recovery facilities. Most steel cans are fabricated from tin plate (Steel Recycling Institute, 2002).

In Europe, there has been a growing concern that new targets for collecting and recycling packaging materials, including tinplate, proposed by the European Commission, may force packaging material producers to raise prices. Furthermore, The Association of European Producers of Steel for Packaging (APEAL) is concerned that the impact of the new proposals may fall disproportionately among producers of packaging materials. The Commission proposes, in some cases, to quadruple the amount of used packaging materials collected and recycled under its Directive for Packaging and Packaging Wastes (94-62-EC). Furthermore, the Commission claims that meeting the new targets will cost \$708 million, but save \$310 million in environmental costs plus \$620 million in other forms of waste management. The Commission also indicates that its new differentiated targets accurately reflect variances in the costs and benefits of recycling the various materials involved. Most agree that the proposals are generally beneficial, but many feel the time scale may be too short for some countries. Observers note that Germany is already ahead of the proposed targets, but that Britain is far behind in

collecting and recycling beverage cans. Europe tends to use tinplate and aluminum for its beverage can requirements compared to the United States where the beverage can market is totally based on aluminum. The proposals for metal cans call for 50% to be recycled by 2006, versus 15% in 2001 (Canning & Filling, 2002).

In Australia, Marlborough Resources Ltd. announced that it would expand its Ardlethan Tin project in New South Wales to around 700 metric tons per year (t/yr), or 140% of the original design capacity. Construction has begun, and the expansion is expected to be completed in July 2002, when tin production would begin to increase from the current 500 t/yr. Further incremental expansions are planned with an aim to eventually double production. The capital cost of the current expansion is about \$530,000 compared with Ardlethan's original acquisition cost of \$2.5 million. Ardlethan is operating at a cash cost of about \$3,000 per metric ton, but the additional output would help the mine become one of the lowest cost tin producers in the world. Currently, all the mine's tin concentrate is exported to Malaysian Smelting Corp. under a 2-year contract (Platts Metals Week, 2002b).

In Indonesia, it was announced that Australian titanium minerals producer, Iluka Resources, completed the sale of its 75% equity stake in Indonesia's PT Koba Tin. The Iluka stake was sold to Malaysia Smelting Corp. (Platts Metals Week, 2002a).

In Australia, Murchison United announced that it is considering the sale of its Renison Bell tin mine on the island of Tasmania. Murchison officials reported that a sale was under consideration because Murchison wished to focus on its newly acquired copper-tin operation in Portugal. Murchison will pay \$78 million for the 49% stake that was previously held by Rio Tinto Ltd. in Somincor, the holding company for the Neves Corvo Mine in Portugal. Murchison stated that Renison Bell would produce about 9,000 metric tons of tin in concentrate during 2002, which amounts to most of Australia's

tin production. Company officials observed that they had instituted numerous cost-saving projects at Renison Bell in recent years, but decided that it would be difficult to further reduce expenses there (Metal Bulletin, 2002).

In its most recent monthly report, CRU International Ltd. forecast a rise of 2.9% in world tin consumption during 2002. CRU reported that the increased consumption would be driven primarily by increased demand for tin in solder for electronic applications (CRU International Ltd., 2002).

#### **Update**

On May 3, 2002, the Platts Metals Week composite price for tin was \$2.84 per pound.

#### **References Cited**

- Canning & Filling, 2002, New EU recycling targets could raise prices: Canning & Filling, v. 15, February, p. 4.
- CRU International Ltd., 2002, The four key supply-demand variables: CRU Tin Monitor, April, p. 2.
- Metal Bulletin, 2002, Murchison considers sale of Renison Bell: Metal Bulletin, no.8661, March 28, p. 4.
- Platts Metals Week, 2002a, Iluka completes sale of PT Koba Tin: Platts Metals Week, v. 73, no. 15, April 15, p. 10.
- Platts Metals Week, 2002b, Marlborough lifts Ardlethan output 40%: Platts Metals Week, v. 73, no. 15, April 15, p. 10.
- Steel Recycling Institute, 2002, Slowing economy doesn't stop steel recycling: Pittsburgh, PA, Steel Recycling Institute, 1 p.

TABLE 1  
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	2001 p/	2002		
		February	March	January-March
Production, secondary e/ 2/	10,800	900	900	2,700
<b>Consumption:</b>				
Primary	39,300	3,080 r/	3,070	9,260
Secondary	10,500	786 r/	809	2,450
Imports for consumption, metal	37,500	2,780	NA	NA
Exports, metal	4,350	170	NA	NA
Stocks at end of period	XX	7,020 r/	7,410	XX
<b>Prices (average cents per pound): 3/</b>				
Metals Week composite 4/	314.88	273.15	278.81	XX
Metals Week New York dealer	211.48	178.59	184.84	XX
London, standard grade, cash	200.00	169.00	174.00	XX
Kuala Lumpur	200.77	169.92	173.63	XX

e/ Estimated. p/ Preliminary. 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
<b>2001:</b>			
March	352.74	341.70	348.45
April	346.75	340.32	342.70
May	348.21	336.94	342.78
June	344.36	325.63	332.74
July	321.14	291.50	306.98
August	285.47	270.73	280.33
September	278.39	262.81	268.50
October	275.81	264.30	270.42
November	301.03	272.87	287.17
December	297.98	283.04	289.64
Year	359.89	262.81	314.88
<b>2002:</b>			
January	287.97	277.20	280.68
February	280.03	267.12	273.15
March	283.34	276.69	278.81

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.

Note: Data for 2001 in the January 2002 publication were printed erroneously.

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)	
2001 p/	77,500	1,710,000	8,130	4.8	2,010,000
2001:					
December	3,880	136,000	668	4.9	130,000
2002:					
January	W	187,000	683	3.6	191,000
February	5,190	190,000	637	3.4	152,000
March	4,810	190,000	582	3.1	NA

p/ Preliminary. 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	2001	2002		January- February
		January	February	
<b>Imports:</b>				
<b>Metal (unwrought tin):</b>				
Bolivia	6,040	610	458	1,070
Brazil	5,510	220	480	700
Chile	122	--	--	--
China	6,360	473	139	612
Hong Kong	20	--	--	--
Indonesia	3,880	100	300	400
Malaysia	674	--	1	1
Peru	14,000	1,520	1,390	2,910
Russia	143	--	1	1
Singapore	145	--	--	--
United Kingdom	118	--	--	--
Other	434	33	13	45
Total	37,500	2,950	2,780	5,740
<b>Other (gross weight):</b>				
Alloys	3,830	381	273	655
Bars and rods	539	9	6	15
Foil, tubes, pipes	1	(2/)	--	(2/)
Plates, sheets, strip	529	2	3	5
Waste and scrap	3,700	40 r/	30	70
Miscellaneous	13,900	4,090	190	4,280
Total	22,500	4,520	502	5,020
Exports (metal)	4,350	378	170	548

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	2002							January- February
	2001 p/	February			March			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	1,500	133 r/	W	133 r/	131	W	131	397
Babbitt	316	22 r/	23	45 r/	19	22	41	168
Bar tin and anodes	248	13 r/	W	13 r/	13	W	13	45
Bronze and brass	2,640	85	109	194	94	133	227	617
Chemicals	8,020	642	W	642	642	W	642	1,930
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	15,700	838 r/	341 r/	1,180 r/	878	341	1,220	3,490
Tinning	906	33	--	33	37	--	37	101
Tinplate 3/	8,130	637	--	637	582	--	582	1,900
Tin powder	W	W	W	W	W	W	W	W
White metal 4/	W	W	W	W	W	W	W	W
Other	1,530	73 r/	13	86 r/	76	13	89	366
Total reported	38,900	2,480 r/	486 r/	2,960 r/	2,470	509	2,980	9,010
Estimated undistributed consumption 5/	10,800	600	300	900	600	300	900	2,700
Grand total	49,700	3,080 r/	786 r/	3,860 r/	3,070	809	3,880	11,700

p/ Preliminary. 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.