

# Mineral Industry Surveys

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## TIN IN JUNE 2001

Domestic consumption of primary tin in June was estimated by the U.S. Geological Survey to be 1% higher than that in May and 8% lower than that in June 2000.

The Platts Metals Week average composite price for tin in June was \$3.33 pound, 3% lower than that in May and 10% lower than that in June 2000.

Europe remains the world's largest tin consuming market, and the tin can has a far greater share of the beverage container market there than it does in the United States. At the forefront of protecting and expanding steel's market share in Europe is an organization known as APEAL, an acronym for Association des Producteurs Européens d'Aciers pour Emballages Legers, anglicized to Association of European Producers of Steel for Packaging. Based in Brussels, Belgium, it is active in marketing communications, market research, and coordination of environmental developments (such as legislation, recycling, and public affairs).

APEAL's membership comprises Europe's four major producers of steel for packaging: Aceralia Sidstahl Ibérica SA (Spain), Anglo-Dutch Corus Packaging Plus, (United Kingdom and Netherlands) Rasselstein Hoesch GmbH (Germany), and Usinor Packaging (France). These four companies account for 90% of Western European steel production for packaging, representing an annual output of about 5 million metric tons (Mt).

Among its recent research activities, APEAL carried out a survey in six European countries to establish consumer attitudes and perceptions regarding different packaging concepts for beverages.

Recently, the German Government proposed a deposit scheme to discourage one-way packaging (including tin cans). APEAL opposes this scheme (The Canmaker, 2001b).

In Bolivia, Allied Deals Corp., the new owner of the Vinto tin smelter, was considering proposals to build a new 10,000-metric-tons-per-year (t/yr) tin smelter in western India. The plant is only at a conceptual stage, but a fast-track approach could make it operational within 18 months. Concentrates for

the plant would need to be imported. Allied is planning a supply strategy involving its 30,000-t/yr-capacity Vinto smelter in Bolivia (CRU Tin Monitor, 2001).

Murchison United Ltd. has been chosen as the preferred bidder for Rio Tinto's 49% stake in Somincor, owner of the Neves Corro copper/tin mine in Portugal. Murchison is also negotiating with the Portuguese Government (which owns the remaining 51%) for a further 17% stake, giving it control of the mine. Neves Corro produced 1,200 t/yr of tin-in-concentrate in 2000, when production was severely curtailed by mechanical and labor problems (CRU Tin Monitor, 2001).

In Malaysia, figures released by the Malaysian Chamber of Mines show that 2000 production of tin-in-concentrate fell by 14% from 1999 levels to 6,310 metric tons (t). Currently, there are 70 tin mines in Malaysia: 2 dredging, 25 gravel pump, 12 open cast, 1 underground, and 30 retreatment operations (CRU Tin Monitor, 2001).

In England, the South Crofty tin mine in Cornwall is expected to resume tin concentrate production in 2002. The new owner, Baseresults Ltd., announced that water pumping will begin in 2001, with ore production beginning 18 months later. When South Crofty was last operating (1998), it produced 2,500 t of tin-in-concentrate at a rate of 200,000 t/yr of tin ore. It is expected that 200 people will be employed at the mine by the end of the second year of operation (CRU Tin Monitor, 2001).

In China, eight tin mill operators recently urged the Government to limit tinplate imports. Tinplate imports to China increased in 2000 to 397,000 t from 278,000 t in 1999. However, local production cannot meet demand and imported tinplate is 20-30% cheaper; thus the import share of the market (estimated at 40%) is likely to remain large (CRU Tin Monitor, 2001).

In China, figures released by the national Bureau of Statistics show that consumption of tinplate rose by almost 25% in 2000 to 1.32 Mt from 1.06 Mt in 1999 (The Canmaker, 2001a).

In Japan, the Japan Steel Can Recycling Association reported that steel can recycling reached 84% in 2000. That rate was a record and represented a rise of 12% over the 1999 figure. A decade ago, the rate was about 50%. In 2000, about 1.03 Mt of scrap steel cans were recovered. Approximately 94% of Japanese communities collect cans (Container Recycling Report, 2001).

In Japan, Nippon Steel Corp. and NKK Corp., the country's two leading tinplate producers, have launched a campaign to promote consumption of beverages in tinplate cans in cities where their steel plants are located. The move follows a decline in Japan's tinplate consumption from 863,000 t in 1997 to 700,000 t in 1999, largely attributed to the growing popularity of PET bottles for drinks. Nippon Steel operates six electrolytic tinning lines at its Hirohata, Nagoya, and Yawata steel plants with an annual capacity of 1.5 Mt. NKK's two tin mills at its Fukuyama and Keihin steel plants have a combined annual capacity of 384,000 t of tinplate and 360,000 t of tin-free-steel (The Canmaker, 2001c).

In Indonesia, it was reported that major tin producer PT Tambang Timah may absorb closed tin mines in Thailand if mandatory tin payments by miners are removed and if the proposed flat rate royalty replaces the current complicated

eight-level structure. Only 30 tin mines out of 145 once working are still active in Thailand. Most were closed over the past decade due to high production costs. These mines are primarily located in the Kanchanaburi, Phuket, and Phang Nga areas. Thailand's Mining Industry Council stated that the removal of the compulsory payment would reduce production costs by as much as 10% (Platts Metals Week, 2001).

### **Update**

On August 10, 2001, the Platts Metals Week composite price for tin was \$2.76 per pound.

### **References Cited**

- Container Recycling Report, 2001, Steel can recycling: Container Recycling Report, v. 12, no. 7, July, p. 3.
- CRU Tin Monitor, 2001, Industry News: CRU International Ltd., June, p. 8.
- Platts Metals Week, 2001, Timah considers opening Thai mines: Platts Metals Week, v. 72, no. 27, July 2, p. 15.
- The Canmaker, 2001a, In brief: The Canmaker, v. 14, August, p. 14.
- 2001b, Taking steel's fight to Brussels: The Canmaker, v. 14, August, p. 23.
- 2001c, Tinplate promoted in Japan by steelmakers: The Canmaker, v. 14, August, p. 14.

TABLE 1  
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	2000 p/	2001		
		May	June	January- June
Production, secondary e/ 2/	10,800	900	900	5,400
<b>Consumption:</b>				
Primary	42,000	3,240	3,270	19,700
Secondary	10,700	908	858	5,210
Imports for consumption, metal	44,900	3,900	NA	NA
Exports, metal	6,640	309	NA	NA
Stocks at end of period	10,400	8,640	8,800	XX
<b>Prices (average cents per pound): 3/</b>				
Metals Week composite 4/	370.16	342.78	332.74	XX
Metals Week New York dealer	254.92	231.83	226.90	XX
London, standard grade, cash	246.00	224.00	219.00	XX
Kuala Lumpur	244.12	222.98	214.29	XX

e/ Estimated. p/ Preliminary. 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>2000:</b>			
June	373.83	362.99	368.23
July	372.25	362.15	366.03
August	372.25	362.15	363.52
September	375.60	365.86	372.11
October	368.35	355.28	362.14
November	364.20	355.77	361.05
December	361.83	355.46	359.43
Year	405.27	355.46	370.16
<b>2001:</b>			
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

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 p/	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	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	2000	2001		January- May
		April	May	
Imports:				
Metal (unwrought tin):				
Bolivia	6,330	484	120	2,190
Brazil	5,860	321	641	2,160
Chile	2,630	--	--	122
China	10,200	647	708	4,450
Hong Kong	397	--	20	20
Indonesia	5,320	279	620	2,040
Malaysia	214	150	60	216
Peru	12,800	1,100	1,560	6,620
Russia	145	--	--	141
Singapore	20	--	105	105
United Kingdom	514	--	--	107
Other	434	75	65	265
Total	44,900	3,060	3,900	18,400
Other (gross weight):				
Alloys	4,370	183	196	1,450
Bars and rods	993	37	45	286
Foil, tubes, pipes	(2/)	--	(2/)	(2/)
Plates, sheets, strip	588	3	3	27
Waste and scrap	2,340	142	97	3,180
Miscellaneous	8,510	920	1,010	6,070
Total	16,800	1,290	1,350	11,000
Exports (metal)	6,640	290	309	2,320

-- 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	2000 p/	2001						January- June
		May			June			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	1,430	126	W	126	122	W	122	751
Babbitt	249	29	W	29	28	W	28	187
Bar tin and anodes	294	20	W	20	20	W	20	126
Bronze and brass	2,800	107 r/	147	254 r/	109	119	228	1,330
Chemicals	8,180	668	W	668	668	W	668	4,010
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	16,900	850	426	1,280	888	404	1,290	7,960
Tinning	666	79	--	79	76	--	76	467
Tinplate 3/	9,020	679	--	679	666	--	666	4,100
Tin powder	195	W	W	W	W	W	W	W
White metal 4/	10	W	W	W	W	W	W	W
Other	2,240	86	35	121	88	35	123	624
Total reported	41,900	2,640	608	3,250	2,670	558	3,220	19,500
Estimated undistributed consumption 5/	10,800	600	300	900	600	300	900	5,400
Grand total	52,700	3,240	908	4,150	3,270	858	4,120	24,900

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.