

Mineral Industry Surveys

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TIN IN JANUARY, FEBRUARY, AND MARCH 2009

Domestic consumption of primary tin in the first quarter of 2009 was estimated to be 5,100 metric tons (t), compared with 5,760 t and 5,740 t in the fourth and first quarters, respectively, of 2008. Imports of refined tin were 8,940 t in the first quarter of 2009 compared with 10,200 t in the first quarter of 2008. Peru, Bolivia, and Indonesia, in decreasing order, were the leading sources of tin imports in the first quarter of 2009.

The Platts Metals Week average composite price of tin in March 2009 was \$6.69 per pound compared with \$12.07 per pound in March 2008.

The World Bureau of Metal Statistics (WBMS) issued preliminary data on world supply and demand in 2008, showing that of the six metals traded on the London Metal Exchange Ltd., tin was the only one with a supply deficit. However, tin consumption fell more in 2008 than did consumption for other metals. WBMS estimated that the world tin supply fell short of demand by 4,300 t in 2008. WBMS also estimated that tin consumption in China declined by 5% in 2008, while Japan experienced a 6% decrease. WBMS indicated that the weakest market was the United States where consumption was 26% lower than that in 2007. The strongest market was Europe where consumption rose by 2% (ITRI Ltd., 2009).

CRU Tin Monitor (2009) identified 12 companies that consistently produced more than 5,000 metric tons per year (t/yr). The firms and their 2008 refined tin production (in metric tons) were

1. Yunnan Tin Group Co., Ltd. (China)	58,400
2. PT Timah Tbk (Indonesia)	49,000
3. Minsur S.A. (Peru)	38,000
4. Malaysia Smelting Corp. (Malaysia)	31,600
5. Thailand Smelting and Refinery Co. Ltd. (Thailand)	21,700
6. Yunnan Chengfeng Non-Ferrous Metals Co., Ltd. (China)	13,500
7. Liuzhou China Tin Group, Ltd. (China)	12,000
8. Metallo Chimique N.V. (Belgium)	9,200
9. Em Vinto (Bolivia)	8,800
10. PT Koba Tin (Indonesia)	7,100
11. Gejiu Zi-Li Co., Ltd. (China)	7,000
12. Taboca/Paranapanema (Brazil)	6,100

In a related study, CRU Tin Monitor (2009) compared data showing the concentration of production ownership in tin compared to other major metals. With the top five refined tin producers accounting for 65% of world tin output, tin ranks number one among the seven major metals compared. The other metals and their degree of concentration held by the top five producers in their respective metals were nickel (61%), aluminum (38%), gold (32%), zinc (30%), copper (28%), and lead (22%).

The Association of European Producers of Steel for Packaging (Brussels, Belgium) announced that 69% or 2.5 million metric tons of food and drink cans and other steel containers in Europe were recycled in 2007. That rate placed steel (mostly tinplate) higher than the rates for other packaging materials such as glass (62%), beverage cartons (32%), and plastic (20%) (Association of European Producers of Steel for Packaging, 2009).

The Government of Bolivia agreed to guarantee a \$20 million investment to install a new Ausmelt furnace at the state-owned Vinto tin smelter. The new furnace would increase the smelter's treatment capacity to 38,000 t/yr of tin concentrate, allowing it to produce 17,000 t/yr of refined tin, an increase from 11,000 t/yr currently. The Government seized Vinto in February 2007 from trading firm Glencore International AG (Baar, Switzerland) (Platts Metals Week, 2009a).

Silver Standard Resources Inc. (Vancouver, British Columbia, Canada) announced that its wholly owned Pirquitas Project in Jujuy, Argentina, continued to progress with a goal of concentrate production during the first quarter of 2009. The mine is primarily a silver mine, with significant tin and zinc byproduct; silver and tin concentrates were expected to account for about 95% of the mine's revenue. Silver Standard estimated that the cost to develop the Pirquitas facility was \$230 million (TIN World, 2009).

PT Koba Tin (Jakarta, Indonesia) [75% owned by Malaysia Smelting Corp. (Butterworth, Malaysia) and 25% by PT Timah Tbk (Bangka, Indonesia)] announced plans to produce 9,000 t of tin in 2009. Koba produced 7,200 t of refined tin in 2008 including production from the treatment of stockpiled slags. The increase in production in 2009 would come from the opening of

four new gravel pumps and a planned resumption of small-scale subcontractor mining. Koba also operates one onshore dredge (CRU International, 2009).

The Indonesian Government set a tin production quota of 105,000 t in 2009, a 47% increase from tin output in 2008. Of the 105,000 t, 90,000 t would come from Bangka Island, which has many smelters, including those of Koba Tin and PT Timah, and the remaining production would come from the Riau Islands (Platts Metals Week, 2009b).

Singapore Tin Industries Pte. Ltd. (Singapore) (STI) announced that it would put up its assets for tender on January 15, signaling the end of operations for the firm; STI has been closed since the end of 2008. Yunnan Tin Group Co., Ltd. (Gejiu City, Yunnan Province, China) owned 51% of STI, and KJP International Corp. (Taipei, Taiwan) owned the remaining 49%. STI had the capacity to produce 36,000 t/yr of refined tin, and in 2007, commissioned a 12,000 t/yr tin smelter on Bangka Island in Indonesia (CRU International Ltd., 2009).

References Cited

- Association of European Producers of Steel for Packaging, 2009, Recycling rate of 69% confirms steel for packaging's continued position as leader in Europe: Brussels, Belgium, Association of European Producers of Steel for Packaging news release, March 11, 2 p. (Accessed March 11, 2009, at http://www.apeal.org/file.asp?filetype=doc/04/006/005/apeal_recycling_press_release_2007_-_uk-vf.pdf.)
- CRU International Ltd., 2009, CRU Week in the News: CRU International Ltd., January 8. (Accessed January 8, 2009, via <http://www.crumonitor.com>.)
- CRU Tin Monitor, 2009, The tin top twelve—Focus on the leading producers in 2008: CRU Tin Monitor, February, p. 7.
- ITRI Ltd., 2009, WBMS: Tin market deficit in 2008, but consumption down: Uxbridge, United Kingdom, ITRI Ltd. news release, February 19. (Accessed February 25, 2009, via http://www.itri.co.uk/pooled/articles/BF_NEWSART/view.asp?Q=BF_NEWSART_310201.)
- Platts Metals Week, 2009a, Bolivia invests in tin smelter: Platts Metals Week, v. 80, no. 7, February 16, p. 17.
- Platts Metals Week, 2009b, Indonesia tin quota at 100,000 mt: Platts Metals Week, v. 80, no. 9, March 2, p. 11.
- TIN World, 2009, Pirquitas on track for commissioning in Q1: TIN World, no. 26, Spring, p. 7.

TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2008 ^p		2009			
	Year	December	January	February	March	January- March
Production, secondary ^{e, 2}	11,900	994	994	994	994	2,980
Consumption:						
Primary	21,100	1,940	1,930	1,870	1,900	5,700
Secondary	10,800	713	712	676	710	2,100
Imports for consumption, metal	36,300	2,790	3,430	2,020	3,500	8,940
Exports, metal	9,800	435	424	325	340	1,090
Stocks at end of period	XX	7,970	7,890	7,660	7,640	XX
Prices (average cents per pound): ³						
Metals Week composite ⁴	1,128.97	707.66	711.90	692.57	668.86	XX
Metals Week New York dealer	864.53	541.64	546.50	525.54	509.22	XX
London, standard grade, cash	839.10	508.73	514.28	499.55	483.74	XX
Kuala Lumpur	837.70	515.42	521.74	498.09	513.15	XX

^eEstimated. XX Not applicable.

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

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

³Source: Platts Metals Week.

⁴The 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 PRICE¹

(Cents per pound)

Period	High	Low	Average
2008:			
December	787.09	630.41	707.66
Year	1,529.29	630.41	1,128.97
2009:			
January	748.18	688.67	711.90
February	712.54	670.97	692.57
March	698.72	647.98	668.86

¹The 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 STATES¹

(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)	
2008:					
December	2,310	203,000	585	2.9	111,000
Year	30,900	2,280,000	6,690	2.9	1,770,000
2009:					
January	1,440	118,000	562	4.8	103,000
February	1,170	86,500	523	6.0	94,400
March	1,350	96,000	547	5.7	107,000

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

²Source: American Iron and Steel Institute monthly publication.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS¹

(Metric tons)

Country or product	2008		2009			January- March
	Year	December	January	February	March	
Imports:						
Metal (unwrought tin):						
Bolivia	4,980	666	348	366	1,160	1,870
Brazil	1,570	50	125	100	326	551
China	2,380	83	79	39	79	196
Indonesia	2,000	40	60	80	510	650
Malaysia	1,740	272	15	--	--	15
Peru	20,900	1,670	2,770	1,430	1,280	5,480
Singapore	706	--	--	--	118	118
Thailand	1,670	--	15	--	--	15
United Kingdom	225	--	--	--	--	--
Other	152 ^r	14	20	--	23	43
Total	36,300	2,790	3,430	2,020	3,500	8,940
Other (gross weight):						
Alloys	1,720	59	82	92	65	239
Bars and rods	4,190	175	232	201	219	652
Foil, tubes, pipes	97	10	2	13	2	17
Plates, sheets, strip	1,150	406	(2)	17	26	43
Waste and scrap	23,300	337	2,110	5,540	5,700	13,300
Miscellaneous	2,940	195	173	127	114	414
Total	33,400	1,180	2,600	5,990	6,130	14,700
Exports (metal)	9,800	435	424	325	340	1,090

^rRevised. -- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT¹

(Metric tons of contained tin)

Product	2008 ^P			2009										
	Year	December		January			February			March			January- March	
		Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary	Total	Primary	Secondary		Total
Alloys (miscellaneous) ²	1,800	124	W	124	131	W	131	131	W	131	131	W	131	423
Babbitt	459	21	W	21	19	W	19	20	W	20	18	W	18	96
Bar tin and anodes	218	18	--	18	16	--	16	16	--	16	16	--	16	48
Bronze and brass	2,250	73	90	163	95	88	183	72	87	159	72	87	159	501
Chemicals	2,940	242	W	242	242	W	242	242	W	242	242	W	242	751
Collapsible tubes and foil	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Solder	5,750	201	277	478	194	277	471	194	277	471	197	277	474	1,420
Tinning	322	30	--	30	24	--	24	27	--	27	25	--	25	76
Tinplate ³	6,690	585	--	585	562	--	562	523	--	523	547	--	547	1,630
Tin powder	227	18	W	18	18	W	18	18	W	18	18	W	18	57
White metal ⁴	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Other	389	32	45	77	29	46	75	29	12	41	28	47	75	94
Total reported	21,100	1,340	413	1,760	1,330	412	1,740	1,270	376	1,650	1,300	410	1,710	5,100
Estimated undistributed consumption ⁵	10,800	600	300	900	600	300	900	600	300	900	600	300	900	2,700
Grand total	31,900	1,940	713	2,660	1,930	712	2,640	1,870	676	2,550	1,900	710	2,610	7,800

^PPreliminary. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

²Includes terne metal.

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

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

⁵Estimated consumption of plants reporting on an annual basis.