

# Mineral Industry Surveys

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## TIN IN OCTOBER 2006

Domestic consumption of primary tin in October was estimated to be slightly lower than that in September and about 10% lower than that in October 2005, according to the U.S. Geological Survey. Estimated domestic consumption of primary tin in the first 10 months of 2006 was about 9% lower than that in the comparable period of 2005. Imports of refined tin during the first 9 months of 2006 were 31,300 metric tons (t), about 5% higher than that for the comparable period of 2005.

The Platts Metals Week average composite price for tin in October was \$6.21 per pound, about 7% above that in September, and about 44% above that in October 2005.

According to a report by independent consultant Commodities Research Unit (London, United Kingdom) to the directors of global tin association ITRI Ltd. at its recent biannual board meeting, global tin consumption was expected to increase by more than 10% in 2006, to reach a record level of 367,000 t, more than 1,000 metric tons per day (t/d). Figures for the first half of 2006 show a growth rate of 19% compared with that of the comparable period of 2005, driven by the strength of the world economy, growth in the Asian electronics industry, and a rapid increase in sales of lead-free solder in key markets. Much of the increase occurred in the Asian market, where apparent consumption rose by almost 27% to over 117,000 t. There was also a 12% increase in European consumption to nearly 37,000 t. Demand in the Americas rose by 4% to more than 33,000 t. China was identified as the leading tin market in the world; apparent consumption in the first 6 months rose by 34% to almost 62,000 t compared to that in the comparable period of 2005. World tin supply was expected to be roughly in balance with demand in 2006, following a large surplus in 2005. The positive outlook for consumption and an assumed small decline in Indonesian tin production is forecast to result in a small deficit of 5,000 to 6,000 t in 2007 (Platts Metals Week, 2006).

In China, the Ministry of Commerce announced a cut in next year's export quota for tin and tin products of 30% to 37,000 t. China has been exporting less tin in 2006 as a result of export tax changes. The export rebate on tin was reduced to 5% from 8% at the beginning of 2006, and was cancelled completely in mid-September. China's tin and tin alloy exports fell 33% to 14,020 t in the first 9 months of 2006 compared with that of the comparable period of 2005 (American Metal Market, 2006).

In Bolivia, reports indicated that unsettled conditions still prevailed at the Huanuni Tin Mine. After the disturbance in which 16 miners were killed, the Government sought to pacify the miners' cooperative by issuing a decree in which 4,000 workers were allowed to sign up as employees of Comibol, the Government-owned mining organization. The Government assumed control of Huanuni on October 31 and terminated the rights of the miners to work the Cerro Posokoni deposit at the site. The move was designed to ease the tensions between cooperative's workers and Huanuni's official miners. Huanuni's management planned to increase the mine's processing capacity to 1,500 t/d by mid-2007 from 800 t/d and to raise reserves and resources as part of a \$1.5-million drilling program. The new strategy takes effect in January 2007 as management struggles to keep the mine profitable while coping with the massive increases in the workforce and associated labor costs following the Government decree. The decree also included Government funding of \$10 million for the expansion plans, including increasing the Santa Elená concentrator capacity to 1,000 t/d of ore and building a new 500-t/d concentrator at the nearby Machacamarca site. A mine expansion would be good news for Vinto, the Bolivian tin smelter owned by Swiss group Glencore through its subsidiary Synchi Wayra, which buys Huanuni concentrate. By mid-2007, Vinto could process more than 30,000 metric tons per year (t/yr) if the Huanuni expansion proceeds; that, in addition to possible output increases at the Bolivar and Colquiri mine sites, would increase production of 99.97% refined tin to 15,000 t/yr from 12,000 t/yr (Metal Bulletin, 2006).

### Update

On November 24, 2006, the Platts Metals Week composite price for tin was \$6.44 per pound.

### References Cited

- American Metal Market, 2006, China slashes tin, antimony export quotas by 30 percent for next year: American Metal Market, v. 114, no. 43-5, November 3, p. 2.
- Metal Bulletin, 2006, High noon in Huanuni: Metal Bulletin, no. 8971, November 20, p. 10.
- Platts Metals Week, 2006, Tin use tops 1,000 mt/day—CRU, ITRI: Platts Metals Week, v. 77, no. 45, November 6, p. 8.

TABLE 1  
SALIENT TIN STATISTICS<sup>1</sup>

(Metric tons, unless otherwise noted)

	2005	2006		
	January- December <sup>p</sup>	September	October	January- October
Production, secondary <sup>e,2</sup>	10,800	900	900	9,000
Consumption:				
Primary	35,900	2,760	2,750	28,400
Secondary	10,800	696 <sup>r</sup>	692	6,970
Imports for consumption, metal	37,500	3,930	NA	NA
Exports, metal	4,330	527	NA	NA
Stocks at end of period	5,400	5,650 <sup>r</sup>	5,640	XX
Prices (average cents per pound): <sup>3</sup>				
Metals Week composite <sup>4</sup>	483.04	578.78 <sup>r</sup>	620.68	XX
Metals Week New York dealer	329.69	428.93	470.33	XX
London, standard grade, cash	304.00	385.00	426.00	XX
Kuala Lumpur	301.83	407.33	441.79	XX

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. XX Not applicable.

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

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

<sup>3</sup>Source: Platts Metals Week.

<sup>4</sup>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<sup>1</sup>

(Cents per pound)

Period	High	Low	Average
2005	496.08	469.82	483.04
2006:			
January	521.70	492.15	503.78
February	517.39	499.65	507.70
March	533.89	508.89	517.91
April	605.47	508.89	569.88
May	609.29	527.83	572.77
June	533.94	504.15	516.34
July	570.52	521.54	545.14
August	572.74	538.14	548.13
September	589.75	575.67	578.78
October	673.37	574.43	620.68

<sup>1</sup>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<sup>1</sup>

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments <sup>2</sup>
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
2005 <sup>p</sup>	W	2,270,000	7,670	3.4	1,860,000
2006:					
January	4,890	183,000	584	3.2	166,000
February	4,640	174,000	591	3.4	138,000
March	4,870	185,000	626	3.4	166,000
April	4,640	169,000	602	3.6	144,000
May	4,860	179,000	604	3.4	166,000
June	4,820	189,000	639	3.4	165,000
July	4,660	167,000	561	3.4	152,000
August	5,210 <sup>r</sup>	158,000 <sup>r</sup>	540	3.4	159,000
September	4,420	164,000	547	3.3	143,000
October	4,730	161,000	538	3.3	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

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

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

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

(Metric tons)

Country or product	2005	2006		
		August	September	January- September
<b>Imports:</b>				
<b>Metal (unwrought tin):</b>				
Bolivia	5,400	--	720	6,600
Brazil	2,150	--	175	669
Chile	20	--	--	--
China	4,510	188	247	3,200
Indonesia	5,220	257	166	3,580
Malaysia	1,530	--	47	245
Peru	18,300	2,470	2,380	14,700
Thailand	45	--	--	60
United Kingdom	67	302	169	1,100
Other	264	54	23	1,140
<b>Total</b>	<b>37,500</b>	<b>3,270</b>	<b>3,930</b>	<b>31,300</b>
<b>Other (gross weight):</b>				
Alloys	7,460	174	172	5,470
Bars and rods	1,030	357	309	1,820
Foil, tubes, pipes	8	7	--	8
Plates, sheets, strip	324	44	33	210
Waste and scrap	3,530	66	59	1,160
Miscellaneous	3,310	430	382	2,490
<b>Total</b>	<b>15,700</b>	<b>1,080</b>	<b>955</b>	<b>11,200</b>
Exports (metal)	4,330	509	527	3,900

-- Zero.

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

Source: U.S. Census Bureau.

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

(Metric tons of contained tin)

Product	2005			2006				January- October
	January- December <sup>p</sup>	September		Total	October		Total	
		Primary	Secondary		Primary	Secondary		
Alloys (miscellaneous) <sup>2</sup>	1,240	179	--	179	180	--	180	1,570
Babbitt	276	19 <sup>r</sup>	W	19 <sup>r</sup>	16	W	16	211
Bar tin and anodes	275	26	W	26	26	W	26	260
Bronze and brass	3,700	130	138	268	120	134	254	2,600
Chemicals	8,680	616	W	616	616	W	616	6,440
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	12,200	579 <sup>r</sup>	250	829 <sup>r</sup>	583	250	833	8,540
Tinning	740	36	--	36	36	--	36	406
Tinplate <sup>3</sup>	7,670	547	--	547	538	--	538	5,860
Tin powder	W	W	--	W	W	--	W	W
White metal <sup>4</sup>	W	W	--	W	W	--	W	W
Other	1,070	31	8 <sup>r</sup>	39 <sup>r</sup>	33	8	41	469
Total reported	35,900	2,160	396 <sup>r</sup>	2,560	2,150	392	2,540	26,400
Estimated undistributed consumption <sup>5</sup>	10,800	600	300	900	600	300	900	9,000
Grand total	46,700	2,760	696 <sup>r</sup>	3,460	2,750	692	3,440	35,400

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Other." -- Zero.

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

<sup>2</sup>Includes terne metal.

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

<sup>4</sup>Includes pewter, britannia metal, and jewelers' metal.

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