

Mineral Industry Surveys

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TIN IN SEPTEMBER 2006

Domestic consumption of primary tin in September was estimated to be slightly higher than that in August 2006 and about 9% lower than in September 2005, according to the U.S. Geological Survey. Estimated domestic consumption of primary tin in the first 9 months of 2006 was 9% lower than that in the comparable period of 2005. Imports of refined tin during the first 8 months of 2006 were 27,400 metric tons (t), about 4% above that for the comparable period of 2005.

The Platts Metals Week average composite price for tin in September was \$5.78 per pound, about 5% above that in August 2006 and 29% above that in September 2005.

In Bolivia, the state news agency reported that mining cooperative representatives accepted a Government proposal to employ 3,300 of their members with the Mining Corporation of Bolivia (Comibol). The agreement arose out of negotiations stemming from violence between the cooperatives and state-employed miners. The two groups were fighting over the cooperative miners' demands for access to tin deposits at Comibol's Empresa Minera Huanani tin mine. The small miners, who are members of four cooperatives mining in the area of Minera Huanani, were strong political supporters of Bolivia's President, who had promised them access to the deposits. Huanani normally produces about 10,000 metric tons of tin per year, more than one half of Bolivia's total tin output (Mineweb, 2006§¹).

The Bolivian Government declared its intention to invest \$10 million in a modernization plan for the country's leading tin smelter, Vinto. The Vinto smelter, controlled by Glencore subsidiary Sinchi Wayra (formerly Comsur), produced 11,800 t of refined tin in 2005, making it the eighth largest producer in the world (CRU Week in the News, 2006a§).

In Indonesia, PT Timah, the country's leading producer, announced that it had produced 31,500 t of tin in the first 9 months of 2006, about 5% more than that in the comparable

period of 2005. Timah's tin-in-concentrate output was 33,600 t. Of that amount, 28% originated from the company's offshore dredging operations, with the remainder coming from inland production (CRU Week in the News, 2006b§).

In Japan, researchers at Daido Metal Ltd. have developed a copper-nickel-tin alloy with hard particles of molybdenum carbide to replace a leaded alloy in the piston pin bushings at the small end of connecting rods. The copper-base alloys traditionally used for those piston pin bushing applications have included a lead component, which, owing to toxicity concerns, needed to be removed. The hard particles were added to prevent adhesion to the steel shaft and to polish the surface of the steel shaft. The alloy composition is 91% copper-6% tin-3% nickel. It is said to provide higher tensile strength than the lead-containing alloy and to have good resistance to corrosion and excellent anti-seizure properties (Advanced Materials & Processes, 2006).

Update

On November 10, 2006, the Platts Metals Week composite price for tin was \$6.39 per pound.

Reference Cited

Advanced Materials & Processes, 2006, Lead-free copper alloy endures high loads in piston bushings: Advanced Materials & Processes, v. 164, no. 11, November, p. 34.

Internet References Cited

CRU Week in the News, 2006a (November 2), Tin, accessed November 2, 2006, via URL <http://www.crumonitor.com>.
CRU Week in the News, 2006b (November 16), Tin, accessed November 16, 2006, via URL <http://www.crumonitor.com>.
Mineweb, 2006 (October 20), Bolivian tin cooperatives awarded \$10 M jobs, benefits package, accessed November 2, 2006, via URL <http://www.mineweb.com>.

¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

	2005	2006		
	January- December ^p	August	September	January- September
Production, secondary ^{e, 2}	10,800	900	900	8,100
Consumption:				
Primary	35,900	2,740 ^r	2,760	25,600
Secondary	10,800	680	697	6,280
Imports for consumption, metal	37,500	3,270	NA	NA
Exports, metal	4,330	509	NA	NA
Stocks at end of period	5,400	5,740 ^r	5,650	XX
Prices (average cents per pound): ³				
Metals Week composite ⁴	483.04	548.13	578.13	XX
Metals Week New York dealer	329.69	404.66	428.93	XX
London, standard grade, cash	304.00	385.00	385.00	XX
Kuala Lumpur	301.83	383.72	407.33	XX

^eEstimated. ^pPreliminary. ^rRevised. NA Not available. 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
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

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)	
2005 ^p	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 ^r	561 ^r	3.4	152,000
August	W	169,000	540 ^r	3.4 ^r	159,000
September	4,420	164,000	547	3.3	143,000

^pPreliminary. ^rRevised. W Withheld to avoid disclosing company proprietary data.

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	2005	2006		January- August
		July	August	
Imports:				
Metal (unwrought tin):				
Bolivia	5,400	1,880	--	5,880
Brazil	2,150	93	--	494
Chile	20	--	--	--
China	4,510	560	188	2,950
Indonesia	5,220	377	257	3,410
Malaysia	1,530	5	--	199
Peru	18,300	1,270	2,470	12,300
Thailand	45	--	--	60
United Kingdom	67	226	302	925
Other	264	103	54	1,120
Total	37,500	4,510	3,270	27,400
Other (gross weight):				
Alloys	7,460	578	174	5,300
Bars and rods	1,030	289	357	1,510
Foil, tubes, pipes	8	(2)	7	8
Plates, sheets, strip	324	--	44	178
Waste and scrap	3,530	44	66	1,100
Miscellaneous	3,310	320	430	2,110
Total	15,700	1,230	1,080	10,200
Exports (metal)	4,330	351	509	3,370

-- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

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

(Metric tons of contained tin)

Product	2005			2006				
	January- December ^p	August		Total	September		January- September	
		Primary	Secondary		Primary	Secondary		Total
Alloys (miscellaneous) ²	1,240	180	--	180	179	--	179	1,390
Babbitt	276	12	W	12	44	W	44	220
Bar tin and anodes	275	26	W	26	26	W	26	234
Bronze and brass	3,700	120	121	241	130	138	268	2,340
Chemicals	8,680	616	W	616	616	W	616	5,820
Collapsible tubes and foil	W	W	W	W	W	W	W	W
Solder	12,200	573	250	823	554	250	804	7,680
Tinning	740	37	--	37	36	--	36	370
Tinplate ³	7,670	540 ^r	--	540 ^r	547	--	547	5,320
Tin powder	W	W	--	W	W	--	W	W
White metal ⁴	W	W	--	W	W	--	W	W
Other	1,070	36 ^r	9	45 ^r	31	9	40	429
Total reported	35,900	2,140 ^r	380	2,520 ^r	2,160	397	2,560	23,800
Estimated undistributed consumption ⁵	10,800	600	300	900	600	300	900	8,100
Grand total	46,700	2,740 ^r	680	3,420 ^r	2,760	697	3,460	31,900

^pPreliminary. ^rRevised. 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.