

Mineral Industry Surveys

For information, contact:

James F. Carlin, Jr., Tin Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4985, Fax: (703) 648-7757
E-mail: jcarlin@usgs.gov

Elsie D. Isaac (Data)
Telephone: (703) 648-7950
Fax: (703) 648-7975
E-mail: eisaac@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

TIN IN MARCH 2004

Domestic consumption of primary tin in March was estimated by the U.S. Geological Survey to be 8% higher than that in February and the same as that in March 2003.

The Platts Metals Week average composite price for tin in March was \$4.96 per pound, about 12% higher than that in February and 53% higher than that in March 2003.

Update

On April 30, 2004 the Platts Metals Week composite price for tin was \$5.74 per pound.

The proliferation of electronic devices, ranging from computers to microwave ovens to cell phones, over the past 20 years has led to concerns about how to effectively and safely dispose of and recycle these devices. Metals such as aluminum, steel, and tin can be extracted and recycled. Hazardous materials are potential byproducts of electronics recovery, including toxics such as lead, mercury, arsenic, and cadmium. According to the U.S. Environmental Protection Agency (EPA), more than 2 million metric tons of electronic waste is buried in landfills each year. By 2005, the agency predicts that nearly 250 million computers will become obsolete and require disposal. In 2001, only 11% of personal computers retired in the United States was recycled (Waste Age, 2004).

More than one half of all end-of-life electronics items are shipped to Asia, where environmental and technological capabilities to recycle them are limited. In February 2003, the European Commission published the Waste Electrical and Electronic Equipment Directive, placing financial responsibility for recycling end-of-life electronics on manufacturers. In the United States, corporate responsibility programs are also increasing, with several computer and electronics manufacturers establishing take-back and recycling programs (Waste Age, 2004).

To meet the growing demand for electronics recycling, Toronto-based Noranda Inc., an international mining and metals company, announced in the summer of 2003 that it had reorganized its U.S.-based recycling operations into one company called Noranda Recycling. The new company brings together three facilities in San Jose and Roseville, CA, and

Lovergne, TN, that had previously been operated by Micro Metallics Corp., as well as the East Providence, RI, facility, which had been operated by Noranda Sampling Inc. The company also opened an electronics recycling facility in Brampton, Ontario, Canada, last year. Together the five facilities made Noranda Recycling one of the largest processors of metal-bearing electronic materials in North America. The new organization employs about 200 people and processes between 75,000 metric tons (t) and 170,000 t of recyclable raw materials each year (Noranda Inc., 2003).

Weirton Steel Corp's (Weirton, WV) union approved a new 5-year contract with International Steel Group (ISG) that paves the way for about 1,000 layoffs, buyouts, and early retirements, or about one-third of the current workforce. ISG (Cleveland, OH) is in the process of acquiring Weirton, which is operating under bankruptcy protection. A condition of the acquisition was the new contract, which would go into effect after ISG's acquisition. About 90% of union members who voted on the new contract voted in favor of it. The union represents about 3,000 Weirton Steel workers. In the past 2 years, ISG has been in an aggressive acquisition mode, buying the assets of bankrupt LTV Steel Corp. and Bethlehem Steel Corp. The Weirton purchase would give ISG another 2.3 million metric tons per year (Mt/yr) of steel production capacity. The deal would make ISG the largest domestic integrated steel producer with about 21 Mt/yr of total capacity, moving it ahead of U.S. Steel Corp., which has a domestic production capacity of 19 Mt/yr. Weirton is a major producer of tinplate, as also were LTV and Bethlehem (Platts Metals Week, 2004b).

The Defense Logistics Agency (DLA) announced plans to open a Web-based selling site on May 1 that it hopes will be the ultimate metals convenience store. It will be open 24 hours a day, 7 days per week. Stock will be limited, at least at first, to lead, tin, and zinc and, like a convenience store, the DLA hopes to sell small quantities of material (two truck loads per customer per week maximum) at a premium price. The DLA already sells metals through its Web-based Basic Operating Agreement (BOA). The BOA is the agency's current spot sales method, and bids can be made either online or faxed. Material is

available weekly, and there is a monthly sales posting result. Longer-term, sales for larger quantities and variable terms are negated (Platts Metals Week, 2004a).

Marlborough Resources NL, Australia's largest tin miner, produced just 193,000 kilograms (kg) of tin in the first quarter of 2004, down sharply from the 314,000 kg produced in the fourth quarter of 2003. The firm blamed the decline on poor ore grades and disruption caused by the commissioning of a second processing plant at its Ardlethan Mine in New South Wales. The new processing line was successfully commissioned at the end of February and was designed to increase Marlborough's capacity to 550,000 kg per quarter (Metal Bulletin, 2004).

References Cited

- Metal Bulletin, 2004, Marlborough's output down in tight tin market: Metal Bulletin, no. 8839, April 20, p. 1.
- Noranda, Inc., 2003, Noranda to expand electronic recycling business into Canada: Toronto, Canada, Noranda Inc. press release, March 3, p. 1-2.
- Platts Metals Week, 2004a, DLA opening SSA lead, zinc, tin, "convenience store": Platts Metals Week, v. 75, no. 14, April 5, p. 12.
- Platts Metals Week, 2004b, Weirton Steel union OKs contract with ISG, expects layoffs: Platts Metals Week, v. 75, no. 14, April 5, p. 8.
- Waste Age, 2004, Putting the pedal to the metal: Waste Age, v. 35, no. 4, April, p. 79-85.

TABLE 1
SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

| | 2004 | | | |
|--|-------------------|--------------------|--------------------|-------------------|
| | 2003 ^p | February | March | January- March |
| Production, secondary ^{e, 2} | 10,800 | 900 | 900 | 2,700 |
| Consumption: | | | | |
| Primary | 35,200 | 2,950 | 3,180 | 9,290 |
| Secondary | 10,800 | 682 | 707 | 2,070 |
| Imports for consumption, metal | 37,100 | 2,920 | NA | NA |
| Exports, metal | 3,690 | 268 | NA | NA |
| Stocks at end of period | 6,520 | 6,130 ^r | 6,280 ^r | XX |
| Prices (average cents per pound): ³ | | | | |
| Metals Week composite ⁴ | 339.84 | 442.15 | 495.71 | XX |
| Metals Week New York dealer | 218.06 | 314.12 | 357.11 | XX |
| London, standard grade, cash | 207.00 | 302.00 | 345.00 | XX |
| Kuala Lumpur | 209.62 | 301.75 | 343.35 | 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 |
|-----------|--------|--------|---------|
| 2003: | | | |
| March | 330.75 | 318.70 | 323.84 |
| April | 326.53 | 317.74 | 321.54 |
| May | 333.80 | 325.19 | 330.58 |
| June | 335.08 | 324.38 | 329.44 |
| July | 335.48 | 324.04 | 331.38 |
| August | 339.23 | 332.37 | 335.84 |
| September | 347.80 | 336.59 | 340.70 |
| October | 366.28 | 346.47 | 359.21 |
| November | 373.73 | 356.40 | 364.20 |
| December | 437.61 | 378.77 | 404.65 |
| Year | 437.61 | 303.14 | 339.84 |
| 2004: | | | |
| January | 439.98 | 424.94 | 432.53 |
| February | 456.45 | 429.49 | 442.15 |
| March | 549.13 | 459.43 | 495.71 |

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) | |
| 2003 ^p | W | 2,500,000 | 7,750 | 3.1 | 2,100,000 |
| December | W | 204,000 | 647 | 3.2 | 172,000 |
| 2004: | | | | | |
| January | W | 210,000 | 663 | 3.2 | 167,000 |
| February | W | 200,000 | 615 | 3.1 | 169,000 |
| March | 2,720 | 186,000 | 558 | 3.0 | NA |

^pPreliminary. NA Not available. 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 | 2004 | | | |
|-------------------------------|--------------------|---------|------------------|----------------------|
| | 2003 ^p | January | February | January- February |
| Imports: | | | | |
| Metal (unwrought tin): | | | | |
| Bolivia | 5,720 | 384 | 214 | 598 |
| Brazil | 3,000 | 100 | 400 | 500 |
| China | 4,340 | 300 | 195 | 496 |
| Indonesia | 3,070 | 340 | -- | 340 |
| Japan | 136 | -- | 180 | 180 |
| Malaysia | 490 | 160 | 120 | 280 |
| Peru | 19,100 | 1,210 | 1,640 | 2,840 |
| Switzerland | (²) | 20 | 158 | 178 |
| United Kingdom | 143 | -- | 19 | 19 |
| Other | 1,060 ^r | 21 | -- | 21 |
| Total | 37,100 | 2,530 | 2,920 | 5,450 |
| Other (gross weight): | | | | |
| Alloys | 3,820 | 172 | 340 | 512 |
| Bars and rods | 338 | 32 | 40 | 72 |
| Foil, tubes, pipes | 4 | -- | (²) | (²) |
| Plates, sheets, strip | 270 | 38 | 69 | 107 |
| Waste and scrap | 921 | 6 | 21 | 27 |
| Miscellaneous | 2,670 | 186 | 252 | 438 |
| Total | 8,030 | 434 | 722 | 1,160 |
| Exports (metal) | 3,690 | 257 | 268 | 525 |

^pPreliminary. ^rRevised. -- 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 | 2004 | | | | | | | |
|--|-------------------|------------------|-----------|------------------|---------|-----------|-------|-------------------|
| | 2003 ^P | February | | | March | | | January- March |
| | | Primary | Secondary | Total | Primary | Secondary | Total | |
| Alloys (miscellaneous) ² | 1,820 | 134 ^r | W | 134 ^r | 249 | W | 249 | 516 |
| Babbitt | 235 | 13 | W | 13 | 13 | W | 13 | 45 |
| Bar tin and anodes | 278 | 12 | W | 12 | 12 | W | 12 | 36 |
| Bronze and brass | 2,800 | 104 | 107 | 211 | 110 | 133 | 243 | 662 |
| Chemicals | 8,410 | 704 | W | 704 | 704 | W | 704 | 2,110 |
| Collapsible tubes and foil | W | W | W | W | W | W | W | W |
| Solder | 12,500 | 677 | 265 | 942 | 836 | 265 | 1,100 | 3,160 |
| Tinning | 450 | 39 | -- | 39 | 41 | -- | 41 | 116 |
| Tinplate ³ | 7,800 | 615 | -- | 615 | 558 | -- | 558 | 1,840 |
| Tin powder | W | W | -- | W | W | -- | W | W |
| White metal ⁴ | W | W | -- | W | W | -- | W | W |
| Other | 843 | 51 ^r | 10 | 61 ^r | 52 | 9 | 61 | 187 |
| Total reported | 35,200 | 2,350 | 382 | 2,730 | 2,580 | 407 | 2,980 | 8,660 |
| Estimated undistributed consumption ⁵ | 10,800 | 600 | 300 | 900 | 600 | 300 | 900 | 2,700 |
| Grand total | 46,000 | 2,950 | 682 | 3,630 | 3,180 | 707 | 3,880 | 11,400 |

^PPreliminary. ^rRevised. W Withheld to avoid disclosing 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.