

Mineral Industry Surveys

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TIN IN MARCH 2016

Domestic reported consumption of primary tin in March 2016 was 1,940 metric tons (t), slightly less than that in February 2016. Total refined tin imports for February 2016 were 2,360 t, 19% less than those in February 2016. Bolivia, Malaysia, Peru, Indonesia, and Brazil were, in descending order by tonnage, the leading sources of refined tin imports in March (table 4).

The Platts Metals Week average New York dealer price of Grade A tin for March was \$8.03 per pound, an increase of 9% from the February price of \$7.36 per pound, and a decrease of 2% from the March 2015 average price of \$8.24 per pound (table 2).

Indonesia's exports of tin in March were only 2,719 t owing to delays in renewing export permits, government inspections, and flooding. Exports from April 2015 through March 2016 were 60,177 t, the lowest 12-month total since 2007. According to the International Tin Research Institute Ltd. (ITRI), based on their projections for world production and consumption, Indonesia needs to export approximately 8,000 metric tons per month of tin for global tin production and consumption to be balanced (Dragomanovich, 2016).

ITRI released the results of their 2015 survey of refined tin producers (ITRI Ltd., 2016b). According to the ITRI the world's 10 leading refined tin producers, unchanged from those in 2014, and their refined tin production in 2015 (in metric tons) were, in descending order:

| 1. | Yunnan Tin Group Co. Ltd. (China) | 75,500 |
|-----|--|--------|
| 2. | Malaysia Smelting Corp. Berhad (Malaysia) | 30,260 |
| 3. | PT Timah (Persero) Tbk (Indonesia) | 27,431 |
| 4. | Minsur S.A. (Peru) | 20,224 |
| 5. | Yunnan Chengfeng Non-ferrous Metals Co. Ltd. (China) | 16,600 |
| 6. | Empresa Metalúrgica Vinto S.A. (EM Vinto) (Bolivia) | 12,106 |
| 7. | Guangxi China Tin Group. Co. Ltd. (China) | 11,100 |
| 8. | Gejiu Zi-Li Mining and Smelting Co. Ltd. (China) | 11,000 |
| 9. | Thailand Smelting and Refining Co., Ltd. (Thailand) | 10,502 |
| 10. | Metallo Chimique N.V. (Belgium) | 8,863 |

With the exception of EM Vinto in Bolivia, production by the leading producers was either slightly lower or significantly lower than that in 2014. Combined production from the 10

leading producers decreased to 223,586 t in 2015 from 243,710 t in 2014. (See Tin in March 2015.)

The Republic of Korea's Public Procurement Service (PPS) made its first purchase of tin since 2015. The PPS purchased 200 t of standard grade low-lead tin from Daewoo International Corp. Korea reportedly maintains a stockpile of around 3,000 t of tin (ITRI Ltd., 2016a).

The Government of South Africa has invested in Alphamin Resources Corp.'s (Canada) Bisie tin project in Nord-Kivu, Congo (Kinshasa). Thus far, South Africa has provided Alphamin \$7 million out of an agreed upon \$10 million loan. The remaining \$3 million was to be provided when a definitive feasibility study is approved. If the project receives a go-ahead, construction was expected to begin early next year, with concentrate being produced in late 2018 (Macmillan, 2016).

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References Cited

Dragomanovich, Vanya, 2016, Indonesian tin export drop to lowest since 2007: Metal-Pages, April 7. (Accessed April 12, 2016, via http://www.metal-pages.com/.)

ITRI Ltd., 2016a, South Korea makes first tin stockpile purchase of 2016: Frogmore, United Kingdom, ITRI Ltd. news release, March 18. (Accessed March 28, 2016, at https://www.itri.co.uk/market-analysis/news-2/korea-makes-first-stockpile-purchase-of-2016.)

ITRI Ltd., 2016b, The top 10 refined tin producers of 2015: Frogmore, United Kingdom, ITRI Ltd. news release, March 15. (Accessed March 28, 2016, at https://www.itri.co.uk/market-analysis/news-2/the-top-10-refined-tinproducers-of-2015.)

Macmillan, Angus, 2016, S Africa's IDC funds DRC tin project: Metal-Pages, March 14. (Accessed April 12, 2016, via http://www.metal-pages.com/.)

TABLE 1 SALIENT TIN STATISTICS¹

(Metric tons, unless otherwise noted)

| | | | 2016 | _ | |
|--|-------------------|--------------------|----------|----------|--|
| | | | | January– | |
| | 2015 ^p | January | February | February | |
| Production, secondary ^{e, 2} | 10,600 | 880 | 880 | 1,760 | |
| Reported consumption: | | | | | |
| Primary | 23,700 | 2,000 | 2,000 | 4,010 | |
| Secondary | 2,890 | 239 г | 239 | 478 | |
| Imports for consumption, refined tin | 33,600 | 2,880 | 2,900 | 5,790 | |
| Exports, refined tin and tin alloys | 3,350 | 73 | 203 | 276 | |
| Stocks at end of period | 6,940 | 6,420 ^r | 6,440 | 6,440 | |
| Prices (average cents per pound): ³ | | | | | |
| Metals Week New York dealer, Grade A | 756.43 | 623.55 | 735.89 | 692.76 | |
| London Metal Exchange cash | 729.18 | 649.63 | 709.75 | 666.65 | |

 $^{^{\}mathrm{e}}$ Estimated. $^{\mathrm{p}}$ Preliminary. $^{\mathrm{r}}$ Revised.

TABLE 2 AVERAGE TIN PRICES

(Cents per pound)

| | | London |
|------------------|-----------------|----------|
| | Metals Week | Metal |
| | New York | Exchange |
| Period | dealer, Grade A | cash |
| 2015: | | |
| February | 858.03 | 829.36 |
| March | 823.67 | 791.68 |
| April | 756.00 | 724.80 |
| May | 751.13 | 717.52 |
| June | 720.56 | 680.84 |
| July | 698.89 | 678.30 |
| August | 693.67 | 690.31 |
| September | 730.50 | 701.66 |
| October | 746.11 | 718.42 |
| November | 694.75 | 668.35 |
| December | 691.67 | 666.51 |
| January-December | 756.43 | 729.18 |
| 2016: | | |
| January | 649.63 | 623.55 |
| February | 735.89 | 709.75 |
| January-February | 692.76 | 666.65 |

Source: Platts Metals Week.

¹Data 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.

³Source: Platts Metals Week.

 $\label{eq:table 3} \textbf{TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES}^1$

(Metric tons, unless otherwise noted)

| | | Tinplate (all forms) | | | | |
|------------------|---------------------------|----------------------|---------|-----------------------|------------------------|--|
| | | | | | | |
| | Tinplate waste production | | | Tin per metric ton | | |
| | (strips, cobbles, etc.) | Gross | Tin | of plate | Shipments ² | |
| Period | (gross weight) | weight | content | (kilograms) | (gross weight) | |
| 2015: | _ | | | | | |
| February | 3,800 | 57,900 | 463 | 8.0 | 85,600 | |
| March | 4,450 | 67,000 | 483 | 7.2 | 103,000 | |
| April | 4,210 | 75,400 | 507 | 6.7 | 106,000 | |
| May | 4,210 | 68,800 | 499 | 7.3 | 95,100 | |
| June | 3,510 | 76,000 | 501 | 6.6 | 97,000 | |
| July | 3,450 | 76,200 | 516 | 6.8 | 101,000 | |
| August | 3,260 | 75,900 | 513 | 6.8 | 95,400 | |
| September | 3,250 | 71,600 | 501 | 7.0 | 95,400 | |
| October | 3,140 | 74,700 | 504 | 6.7 | 97,400 | |
| November | 2,930 | 47,000 | 422 | 9.0 | 62,100 | |
| December | 3,010 | 59,100 | 466 | 7.9 | 74,900 | |
| January-December | 43,800 | 828,000 | 5,840 | 7.2 | 1,120,000 | |
| 2016: | | _ | | _ | | |
| January | 3,010 | 63,400 | 474 | 7.5 | 76,300 | |
| February | 3,010 | 67,300 | 693 | 10.3 | 80,600 | |
| January-February | 6,020 | 131,000 | 1,170 | 8.9 | 157,000 | |

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

²Source: American Iron and Steel Institute monthly publication.

 ${\bf TABLE~4} \\ {\bf U.S.~TIN~IMPORTS~FOR~CONSUMPTION~AND~EXPORTS}^1$

(Metric tons)

| · | | 2016 | | | |
|--|--------|---------|----------|----------------------|--|
| Country or product | 2015 | January | February | January– February | |
| Imports: | | | | | |
| Metal (refined tin): | | | | | |
| Belgium | 920 | | 300 | 300 | |
| Bolivia | 6,280 | 539 | 786 | 1,330 | |
| Brazil | 2,950 | 288 | 228 | 516 | |
| China | 1,230 | 4 | 26 | 30 | |
| Indonesia | 5,210 | 615 | 451 | 1,070 | |
| Malaysia | 9,990 | 780 | 606 | 1,390 | |
| Peru | 6,600 | 560 | 480 | 1,040 | |
| Singapore | 225 | 50 | | 50 | |
| Thailand | 20 | 40 | 25 | 65 | |
| Other | 199 | 7 | 2 | Ģ | |
| Total | 33,600 | 2,880 | 2,900 | 5,790 | |
| Other (gross weight): | | | | | |
| Alloys | 2,720 | 99 | 191 | 290 | |
| Bars and rods | 1,220 | 104 | 97 | 201 | |
| Foil, tubes, pipes | 109 | (2) | 18 | 19 | |
| Plates, sheets, strip | 90 | 7 | 13 | 20 | |
| Waste and scrap | 32,700 | 1,880 | 1,700 | 3,580 | |
| Miscellaneous ³ | 1,440 | 70 | 100 | 170 | |
| Exports (unwrought tin and tin alloys) | 3,350 | 73 | 203 | 276 | |

⁻⁻ Zero.

Source: U.S. Census Bureau.

 ${\it TABLE~5}$ REPORTED CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1

(Metric tons of contained tin)

| | | 2016 | | | | | | | |
|-------------------------------------|-------------------|---------|------------------|------------------|----------|-----------|-------|----------|--|
| | | January | | | February | | | January- | |
| Product | 2015 ^p | Primary | Secondary | Total | Primary | Secondary | Total | February | |
| Alloys (miscellaneous) ² | 2,640 | 216 | r | 216 | 245 | | 245 | 461 | |
| Babbitt | 305 | 21 | W | 21 | 21 | W | 21 | 42 | |
| Bronze and brass | 1,760 | 63 | 87 | 150 | 61 | 87 | 148 | 298 | |
| Chemicals | 5,440 | 470 | W | 470 | 229 | W | 229 | 699 | |
| Solder | 4,240 | 228 | W | 228 | 228 | W | 228 | 456 | |
| Tinning | 392 | 35 | | 35 | 32 | | 32 | 67 | |
| Tinplate ³ | 5,840 | 474 | W | 474 | 693 | W | 693 | 1,170 | |
| Other ⁴ | 6,020 | 495 | 152 | 646 ^r | 495 | 152 | 646 | 1,290 | |
| Total reported | 26,600 | 2,000 | 239 ^r | 2,240 | 2,000 | 239 | 2,240 | 4,480 | |

^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.

²Less than ½ unit

³Includes tin powders and flakes (HTS code 8007.00.3200) and other articles of tin not elsewhere specified or included (HTS code 8007.00.5000).

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 britannia metal, collapsible tubes and foil, jewelers' metal, pewter, tin powder, type metal and white metal.