



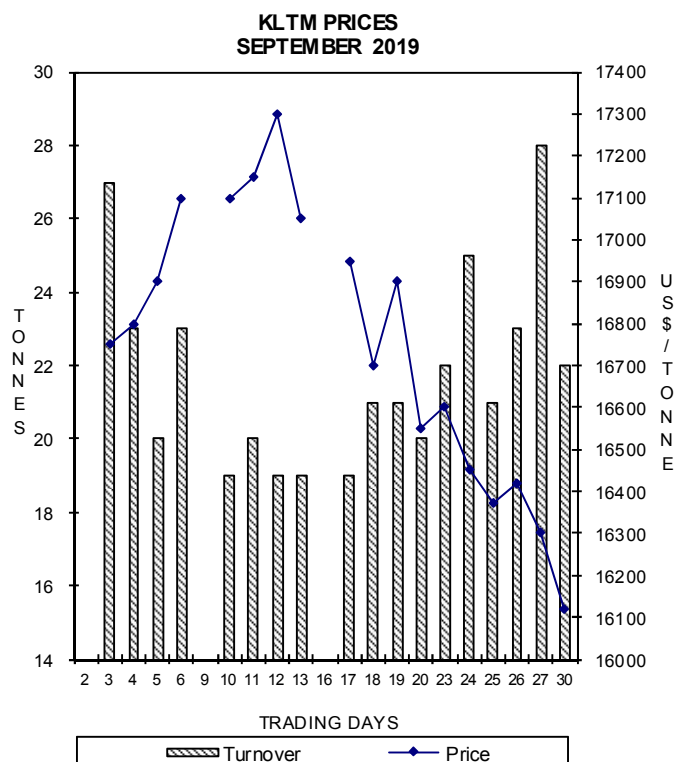
## SEPTEMBER TIN MARKET REVIEW

### Kuala Lumpur Tin Market (KLTM)

The Kuala Lumpur Tin Market (KLTM) opened the trading month of September at US\$16,750 per tonne, much higher than the August's closing price of US\$15,750 per tonne. The market strengthened throughout the first trading week to end the week on a high note. Sentiment was bullish as buyers actively participated in the market reflected from the high turnover recorded during the week.

The market stayed unchanged at the opening of the second trading week from the subsequent week's closing. Strong demand continued to boost prices upward to record the month's highest level at US\$17,300 per tonne on 12<sup>th</sup> September. Buyers continued to dominate the market while sellers stayed on the sideline with prices being in-line with the strong uptrend on the London Metal Exchange (LME). A technical correction, however, adjusted the market at end of the trading week to trade lower.

During the third trading week, tin prices were traded range bound, tilting more towards a downward momentum as market sentiment remained largely uncertain. The market ended the trading week easier, in line with the downward momentum recorded on the LME.



The local physical tin market inched-up slightly at the opening of the fourth trading week backed by strong demand. It declined afterwards to end the trading week lower.

The KLTM declined further during the short final trading week of September to close the trading month at US\$16,120 per tonne, which was also the month's lowest price level. The continuing market decline arose from the current gloomy global financial and economic outlook due to the ongoing and escalating trade wars between the US and China, Japan and South Korea and also from the Brexit saga.

Trading on the KLTM for the month of September was conducted over a shortened 18 days due to the Maal Hijrah, the Agong's birthday, and the Malaysia Day holidays, which fell on 1<sup>st</sup>, 9<sup>th</sup>, and 16<sup>th</sup> September, respectively. The average tin price for September rose to US\$16,730 per tonne from US\$16,532 per tonne recorded in August. The metal was traded within a wide price range of US\$16,120 to US\$17,300 per tonne during the month.

The average daily turnover for September was 22 tonnes, higher than the August average of 20 tonnes. The highest daily turnover recorded for the month was 28 tonnes, whilst the lowest was 19 tonnes. ♦

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## London Metal Exchange (LME)

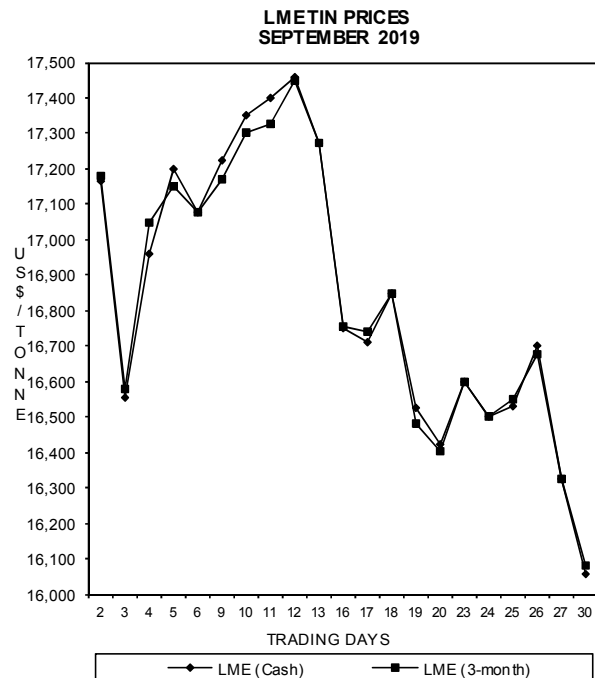
Tin trading on the LME during the month of September again followed the same trading pattern as the other base metals traded on the Exchange, which was generally mixed.

Tin prices on the LME opened the September trading month at US\$17,165 and US\$17,180 per tonne for cash and 3-month tin, respectively before declining substantially the subsequent day. The decline, however, was short lived as prices rebounded and strengthened, boosted by renewed demand. They ended the trading week slightly lower due to a technical correction.

During the second trading week, tin prices further strengthened to record the month's highest level at US\$17,460 per tonne for cash tin and US\$17,450 per tonne for 3-month tin, which were both recorded on 12<sup>th</sup> September. However, a technical correction ensued thereafter to end the trading week easier.

Weak buying demand, particularly from China, being the world's top tin consumer, pushed down prices further during the early days of the third trading week before rebounding somewhat. The rebound, however, was again short lived as prices again softened towards end of the trading week.

During most part of the fourth trading week, tin prices traded range bound as buyers adopted a wait and see attitude unsure of the market's next direction and uncertain sentiment. The market eased subsequently to end the trading week lower.



Tin prices continued to soften during the short final trading week of September to record the lowest price level for the month at US\$16,055 and US\$16,080 per tonne for cash and 3-month tin, respectively. The present challenging global financial and economic outlook arising from the ongoing and escalating trade wars between the US and China, South Korea and Japan and also the Brexit issue have all contributed to this price decline.

The September average LME cash tin price was US\$16,840 per tonne and while the average price for 3-month tin price was US\$16,834 per tonne.

## NEWS ROUND UP

### Chinese Smelters to Cut Refined Tin Production

Tin smelters in China are planning to reduce their refined tin production by some 10 per cent due to tight tin concentrate supply and low profit margin.

The country's tin concentrate supply has continued to be tight throughout 2019 due to lower local output following the closure of the Baiyinchagan mine and the declining inflow of Myanmar concentrate. Import from Myanmar has reduced by almost 30 per

cent during the first half of 2019 compared to the same period last year.

Due to such supply constraint, these smelters have lowered their treatment charges by 20 per cent in order to encourage deliveries of concentrate. Together with the recent low prices on the LME and SHFE, which declined by 28 per cent between their peak in late February and a six-year low on 27 Au-

gust, they are indeed facing a tough time to make profit in the current market environment. As a consequence, 14 Chinese smelters, including Yunnan

Tin, have agreed to reduce their 2019 refined tin production by 20,000 tonnes from that of 2018.

## Cost Effective Lithium-ion Batteries from Micron Tin Powder

A research team from the International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) in Chennai, India has successfully used micron-sized tin as an anode for lithium-ion batteries to achieve cost-effective energy capacity, lifetime and power performance.

They used the <10 micron tin powder without any of the complex and expensive secondary modifications usually applied in advanced anode materials. An environmentally benign water-based binder was also used at the same time to ensure a sustainable product. Their work has been published in the Wiley

Online Library, and has received prestigious recognition as a Hot Topic in Sustainable Chemistry.

The optimised tin anode surpassed the conventional graphite anodes performance, achieving capacities of 723 and 506 mAhg<sup>-1</sup> at 0.1C and 1C rate respectively, retaining more than 80 per cent performance after 1,500 cycles. A particularly fast delithiation reaction capacity of 478 mAhg<sup>-1</sup> at 5C could boost electric vehicle acceleration.

Development of a cost-effective, scalable and sustainable production routes will significantly increase potential for new tin use in lithium-ion batteries.

## AfriTin Announced Uis Tin Resource

AfriTin Mining has announced its maiden Joint Ore Reserves Committee-compliant (JORC-compliant) resource estimate at its Uis tin mine, located in Namibia. The resource totaled some 72 million tonnes of ore at an average grade of 0.134 per cent tin.

The Uis mine was a historically significant tin concentrate producer that was operated between 1958 and 1991 by ISCOR of South Africa. A non-JORC-compliant resource information was compiled during that period, and it was this information that drove AfriTin to look at the project closer. AfriTin started an exploratory drilling programme during the fourth quarter of 2018 to validate this information which was split into two phases.

The first phase was to validate the historical information, with the results having been announced in May 2019. From this work, the 141 existing drill hole datasets were able to be incorporated into the new JORC-compliant resource. While the historical drill hole datasets only estimated the tin resource, the 26 new AfriTin drill holes were analysed for by-products in order to determine the project's further financial upside.

The second phase was to explore the down-dip continuation of the main pegmatite ore bodies within the previously-mined area. It was not included within the resource estimate due to lack of analytical data at the time of the estimation. The results of this work, however, indicate that the ore bodies remain open at depth.

The Uis resource totaled some 71.54 million tonnes of ore, at an average grade of 0.134 per cent for a metal content totaling over 95,000 tonnes. Most of the contained tin is in the 'Inferred' category, indicating low confidence. While there had been significant extrapolation of the ore grades within the mineral resource, the extrapolation parameters were guided by the geological model, including the down-dip exploration drilling, and conducted in a way that was consistent with the average grade for each element within the rest of the ore body.

The Uis project has started producing tin concentrates beginning this year as AfriTin decided to proceed with a fast-start pilot-scale operation. While

still ramping-up to full capacity, the pilot operation can process some 500,000 tonnes of ore annually, producing 720 tonnes of tin concentrate per year. Following the JORC-compliant resource, and upon reaching first phase full-scale production, AfriTin plans to expand the Uis operation to process some 3

million tonnes of ore annually. The company also expects to improve tin recovery by up to 80 per cent from the current 60 per cent, allowing the mine to produce some 5,000 tonnes of tin concentrate annually.

## Further Mineralisation at Kasbah's Achmmach Project

Kasbah Resources has released the results of its recent exploratory drilling programme. The programme was to test the continuity of mineralisation along the Sidi Addi Trend, a previously untested zone of mineralisation parallel to the main mineralised area at its Achmmach project in Morocco.

Achmmach's mineral resource lies mostly within the Meknes Trend. The sub-parallel Sidi Addi Trend has the potential to host a similar resource.

Currently, most of the tin mineralisation at the Achmmach project is within the Meknes Trend, a geological structure that runs roughly north-east. From a database of some 325 diamond drill holes into the Meknes Trend, Kasbah has reported a total ore resource of 14.6 million tonnes. However, a similar sub-parallel structure – the Sidi Addi Trend – was also identified through exploratory drilling. Previously, only a small sub-section of the potential trend had been drilled, yet this "Western Zone" of mineralisation already host an additional 340,000 tonnes of ore.

Owing to similarity between the structure, Kasbah – through its joint venture with Toyota Tsusho Corporation and Nittetsu Mining, Atlas Tin – identified the

'Northern Zone' of the Sidi Addi Trend a key exploration target. As earlier announced, Atlas Tin had completed an exploratory 10-hole diamond drilling programme to establish the continuity of tin mineralisation. The drilling programme identified tin mineralisation in all 10 drill holes, with mineable widths and grades intersected. According to Kasbah's spokesman, the intercepts had "exceeded initial expectations".

Whilst the continuity of tin mineralisation from the 'Western Zone' to the 'Northern Zone' of the Sidi Addi Trend has been established, Kasbah plans to complete further drilling work to define a mineral resource. The company, however, is not rushing into another drill programme, but instead is working on the interpretation of the already-identified mineralization. This is to plan for a more targeted phase of diamond drilling in the future. By combining the new drill results with the established geological model for the Meknes Trend, Kasbah has been able to increase its confidence in the current geological interpretation, which can then be applied to guide the next drilling phase.

*(Source: International Tin Association Ltd. UK)*

# TIN STATISTICS

## KLTM & LME TIN PRICES

Period	KLTM				LME		
	Average Price * (US\$/Tonne)	Exchange Rates	Average Daily Turnover (Tonnes)	Total Turnover (Tonnes)	Cash (US\$/Tonne)	3-Month (US\$/Tonne)	
2001	4,338		88	21,497	4,483	4,521	
2002	4,048		69	17,174	4,061	4,095	
2003	4,954		50	12,434	4,895	4,906	
2004	8,616		78	19,323	8,513	8,367	
2005	7,410		79	19,427	7,382	7,350	
2006	8,746		57	13,905	8,781	8,774	
2007	14,477		60	14,757	14,541	14,533	
2008	19,182		74	18,077	18,510	18,461	
2009	13,556		68	16,905	13,574	13,375	
2010	20,061		62	15,599	20,406	20,430	
2011	26,235		47	11,387	26,113	26,128	
2012	21,193		42	10,206	21,114	21,125	
2013	22,322		39	9,530	22,316	22,328	
2014	21,737		44	10,822	21,916	21,909	
2015	16,015		52	12,679	16,084	16,046	
2016	17,528		47	11,568	17,982	17,889	
2017	20,029		37	8,890	20,098	19,994	
2018	20,151		37	9,075	20,168	20,086	
2018	Jan.		46	973	20,711	20,602	
	Feb.		42	756	21,694	21,549	
	Mar.		42	933	21,214	21,123	
	Apr.		35	744	21,340	21,167	
	May		39	710	20,900	20,794	
	Jun.		45	907	20,663	20,577	
	Jul.		39	857	19,700	19,610	
	Aug.		31	642	19,281	19,224	
	Sep.		43	736	18,999	18,951	
	Oct.		33	762	19,129	19,092	
	Nov.		27	536	19,139	19,123	
	Dec.		26	519	19,243	19,219	
2019	Jan.		34	719	20,480	20,372	
	Feb.		37	628	21,268	21,172	
	Mar.		50	1,046	21,444	21,359	
	Apr.		38	833	20,684	20,560	
	May		19	388	19,531	19,326	
	Jun.		19	344	19,177	19,076	
	Jul.		19	416	17,991	17,983	
	Aug.		20	422	16,577	16,567	
	Sep.		22	392	16,840	16,834	
2019	Sep.						
	2	CLOSED			17,165	17,180	
	3	16,750	4.2260	70,786	27	16,555	16,580
	4	16,800	4.2100	70,728	23	16,960	17,050
	5	16,900	4.1935	70,870	20	17,200	17,150
	6	17,100	4.1830	71,529	23	17,075	17,075
	9	CLOSED			17,225	17,170	
	10	17,100	4.1740	71,375	19	17,350	17,300
	11	17,150	4.1790	71,670	20	17,400	17,325
	12	17,300	4.1724	72,183	19	17,460	17,450
	13	17,050	4.1630	70,979	19	17,275	17,275
	16	CLOSED			16,750	16,755	
	17	16,950	4.1801	70,853	19	16,710	16,740
	18	16,700	4.1840	69,873	21	16,850	16,850
	19	16,900	4.1984	70,953	21	16,525	16,480
	20	16,550	4.1790	69,162	20	16,425	16,405
	23	16,600	4.1660	69,156	22	16,600	16,600
	24	16,450	4.1770	68,712	25	16,500	16,500
	25	16,370	4.1854	68,515	21	16,530	16,550
	26	16,420	4.1936	68,859	23	16,700	16,675
	27	16,300	4.1940	68,362	28	16,325	16,325
	30	16,120	4.1870	67,494	22	16,055	16,080

Sources : The Kuala Lumpur Tin Market  
Metal Bulletin

Note : As from 1 February 2001, KLTM price is quoted in U.S. Dollar  
As from July 2018 onwards, we will no longer publish the New York Spot Tin prices since the Metal Bulletin, which has been our primary source of the New York Spot Tin prices has now stopped publishing them.  
\* KLTM's monthly average price is arrived at on a weighted average against total tonnage basis.

## WORLD REFINED TIN STOCKS (Tonnes)

Period	LME Stock	COUNTRY STOCKS							Total Country Stocks	Total Commercial Stocks	US Strategic Stockpile
		Germany	U.K	Indonesia	Japan	Malaysia*	Brazil*	U.S.A			
2001	30,550	1,006	995	4,251	2,875	1,300	3,600	7,700	21,727	52,277	59,993
2002	25,610	1,723	995	6,660	1,581	1,300	3,600	7,280	23,139	48,749	51,557
2003	14,475	2,129	995	6,660	2,354	1,300	3,600	6,520	23,558	38,033	41,678
2004	8,140	2,129	995	3,791	1,871	1,300	3,600	6,140	19,826	27,966	32,464
2005	16,725	2,129	955	5,302	2,920	1,300	3,600	5,400	21,606	38,311	24,719
2006	12,970	2,129	955	5,199	1,679	1,300	3,600	5,700	20,562	33,532	15,436
2007	12,150	2,129	955	5,199	1,569	1,300	3,600	6,030	20,439	32,565	7,400
2008	7,765	2,129	955	8,634	1,560	1,300	3,600	6,140	24,318	32,000	3,850
2009	26,755	2,129	955	4,149	1,103	1,300	3,600	7,570	20,806	47,561	3,956
2010	16,375	2,129	955	3,234	1,139	1,300	3,600	7,090	19,447	35,822	4,020
2011	12,095	2,129	955	3,265	1,278	1,300	3,600	6,800	19,327	31,422	4,020
2012	12,800	2,129	955	4,163	1,380	1,300	3,600	7,420	20,947	33,747	4,020
2013	9,660	2,129	955	1,192*	1,456	1,300	3,600	6,680	17,312	26,972	4,020
2014	12,135	2,129	955	6,266	1,324	888*	3,600	6,970	22,132	34,267	4,020
2015	6,140	2,129	955	5,838	1,349	730*	3,600	7,520	9,956	14,439	4,020
2016	3,800	2,129	955	3,976*	1,400	356*	3,600*	6,220	18,600	24,800	4,020
2017	2,235	2,130	955	3,870	1,360	600*	3,600*	6,730	19,245	26,395	4,020
2018	2,165	2,130	955	2587*	1,469	439*	3600*	5,610	16,790	27,226	4,020
2017											
Jan.	5,800	2,129	955	3435*	1,416	356*	3600*	6,470	18,902	27,908	4,020
Feb.	5,560	2,129	955	3435*	1,283	356*	3600*	6,470	18,769	26,743	4,020
Mar.	3,510	2,129	955	3435*	1,282	356*	3600*	6,470	18,227	23,760	4,020
Apr.	2,865	2,129	955	3435*	1,244	356*	3600*	6,470	18,189	23,260	4,020
May.	1,910	2,129	955	3868*	1,196	241*	3600*	6,480	18,469	24,179	4,020
Jun.	1,690	2,130	955	3870*	1,311	930*	3600*	6,540	19,336	26,068	4,020
Jul.	1,985	2,130	955	3870*	1,349	930*	3600*	6,540	19,374	29,663	4,020
Aug.	1,910	2,130	955	3870*	1,411	930*	3600*	6,540	19,436	31,539	4,020
Sep.	2,070	2,130	955	3870*	1,393	346*	3600*	6,520	18,814	30,595	4,020
Oct.	2,095	2,130	955	3870*	1,393	350*	3600*	6,560	18,818	30,637	4,020
Nov.	2,395	2,130	955	3870*	1,348	350*	3600*	6,730	18,983	29,610	4,020
Dec.	2,235	2,130	955	3870*	1,360	600*	3600*	6,730	19,245	26,395	4,020
2018											
Jan.	1,955	2,130	955	3956*	1,347	600*	3600*	6,730	19,318	25,885	4,020
Feb.	1,720	2,130	955	3956*	1,384	600*	3600*	6,730	19,318	26,506	4,020
Mar.	2,060	2,130	955	3956*	1,384	732*	3600*	6,330	19,087	25,753	4,020
Apr.	2,225	2,130	955	3956*	1,222	732*	3600*	6,430	19,025	26,735	4,020
May.	2,420	2,130	955	3956*	1,184	732*	0	6,430	15,387	24,661	4,020
Jun.	3,130	2,130	955	3198*	1,184	407*	0	6,430	14,304	25,151	4,020
Jul.	2,970	2,130	955	3246*	1,134	407*	3600*	6,400	17,872	27,857	4,020
Aug.	2,940	2,130	955	3246*	1,093	407*	3600*	6,310	17,741	26,728	4,020
Sep.	2,865	2,130	955	3246*	1,414	677*	3600*	6,310	18,332	27,715	4,020
Oct.	3,085	2,130	955	3246*	1,414	677*	3600*	6,310	15,332	25,139	4,020
Nov.	3,045	2,130	955	3246*	1,510	677*	3600*	5,610	17,728	29,299	4,020
Dec.	2,165	2,130	955	2587*	1,469	439*	3600*	5,610	16,790	27,226	4,020
2019											
Jan.	1,845	2,130	955	2587*	1,578	439*	3600*	5,150	16,439	26,524	4,020
Feb.	1,325	2,130	955	2587*	1,578	439*	3600*	5,150	16,552	26,111	4,020
Mar.	950	2,130	955	8594*	1,765	439*	3600*	4,850	22,333	31,458	4,020
Apr.	890	2,130	955	8594*	1,834	439*	3600*	5,580	23,132	31,451	4,020
May.	2,810	2,130	955	8600*	1,849	439*	3600*	5,510	23,083	34,096	4,020
Jun.	6,045	2,130	955	8600*	2,520	209*	3600*	5,510	23,524	37,961	4,020
Jul.	4,640	2,130	955	8600*	2,520	209*	3600*	5,510	23,524	34,583	4,020
Aug.	6,830	2,130	955	8600*	2,445	209*	3600*	5,510	23,449	35,355	4,020
Sep.	6,620	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a

\* : at producer

n.y.a : not yet available

Sources : Metal Bulletin

World Bureau of Metal Statistics

**PRODUCTION BY MINING METHODS (In Tonnes)  
NUMBER OF MINES IN OPERATIONS  
EMPLOYMENT AT TIN MINES**

YEAR	AGGREGATE			Dredging			Gravel Pump			Open Cast			Under Ground			Panning			Amang Retreatment		
	Prod.	Units*	Emp.	Prod.	Units	Emp.	Prod.	Units	Emp.	Prod.	Units	Emp.	Prod.	Units	Emp.	Prod.	Units	Emp.	Prod.	Units	Emp.
2001	4,972	33	1,461	314	1	131	2,084	16	467	1,485	15	435	18	1	9	511	-	-	560	30	419
2002	4,215	24	1,311	40	1	128	1,425	9	287	1,476	14	414	7	-	-	596	-	-	672	30	482
2003	3,358	26	1,215	70	2	28	1,124	9	235	1,419	15	458	-	-	-	513	-	-	232	28	494
2004	2,743	22	1,262	86	1	14	692	10	221	1,110	12	542	-	-	-	520	-	-	335	25	499
2005	2,857	12	906	-	-	-	693	7	120	1,292	5	273	-	-	-	587	-	-	285	24	513
2006	2,398	14	998	6	1	20	551	7	120	1,042	6	359	-	-	-	468	-	-	331	23	499
2007	2,263	12	861	45	1	8	288	5	109	1,372	6	409	-	-	-	381	-	-	177	21	335
2008	2,602	12	882	14	1	8	181	2	60	1,820	8	434	26	1	17	408	-	-	153	24	363
2009	2,410	9	1,051	66	1	33	80	1	26	1,881	7	671	-	-	-	260	-	-	125	22	321
2010	2,668	12	1,352	54	2	44	6	1	26	2,051	9	849	-	-	-	283	-	-	274	25	433
2011	3,343	13	1,433	22	1	9	-	-	-	2,567	12	1,009	-	-	-	394	-	-	360	23	415
2012	3,725	13	1,464	-	-	-	-	-	-	2,788	13	987	-	-	-	289	-	-	650	23	477
2013	3,697	16	1,532	-	1	20	-	-	-	2,700	15	1,025	-	-	-	325	-	-	663	20	487
2014	3,777	18	1,538	2	1	20	-	-	-	2,912	18	1,090	-	-	-	379	-	-	484	19	448
2015	4,125	18	1,519	-	-	-	-	-	-	3,572	18	1,151	-	-	-	313	-	-	276	18	368
2016	4,158	14	1,406	-	-	-	-	-	-	3,388	14	1,130	-	-	-	293	-	-	442	18	276
2017	3,894	16	1,286	-	1	36	-	-	-	3,104	16	1,058	-	-	-	406	-	-	390	16	228
2018**	3,836	12	1,295	-	-	-	-	-	-	3,171	12	1,075	-	-	-	410	-	-	255	11	220
2017																					
Jan.	351	14	1,298	-	-	-	-	-	-	272.8	14	1,030	-	-	-	29.6	-	-	48.3	18	268
Feb.	316	14	1,308	-	1	36	-	-	-	251.8	13	990	-	-	-	28.3	-	-	36.0	18	282
Mar.	306	14	1,200	-	1	36	-	-	-	248.9	13	929	-	-	-	24.4	-	-	32.3	16	235
Apr.	275	13	1,220	-	-	-	-	-	-	227.9	13	985	-	-	-	30.6	-	-	16.3	16	235
May	338	16	1,330	-	-	-	-	-	-	268.1	16	1,095	-	-	-	33.6	-	-	37.7	16	235
Jun	306	17	1,301	-	-	-	-	-	-	272.0	17	1,069	-	-	-	30.7	-	-	5.5	16	232
July	333	18	1,350	-	1	36	-	-	-	273.4	17	1,083	-	-	-	34.2	-	-	25.7	16	231
Aug.	328	19	1,391	-	1	36	-	-	-	262.7	18	1,122	-	-	-	36.8	-	-	29.2	16	233
Sep.	313	16	1,316	-	-	-	-	-	-	248.6	16	1,083	-	-	-	36.5	-	-	28.9	16	233
Oct.	322	18	1,358	-	1	36	-	-	-	251.8	17	1,089	-	-	-	36.1	-	-	35.3	16	233
Nov.	368	16	1,283	-	-	-	-	-	-	271.9	16	1,050	-	-	-	43.6	-	-	53.9	16	233
Dec.	338	16	1,286	-	-	-	-	-	-	254.5	16	1,058	-	-	-	41.8	-	-	40.8	16	228
2018**																					
Jan.	308	17	1,330	-	-	-	-	-	-	244.5	17	1,088	-	-	-	37.3	-	-	26.5	16	242
Feb.	297	17	1,305	-	-	-	-	-	-	233.4	17	1,063	-	-	-	36.9	-	-	26.6	16	242
Mar.	323	16	1,272	-	-	-	-	-	-	260.4	16	1,029	-	-	-	34.6	-	-	27.6	16	243
Apr.	330	17	1,271	-	-	-	-	-	-	268.5	17	1,031	-	-	-	39.6	-	-	21.8	16	240
May	336	16	1,137	-	-	-	-	-	-	260.8	16	971	-	-	-	40.1	-	-	34.9	11	166
Jun	292	15	982	-	-	-	-	-	-	247.3	15	977	-	-	-	44.3	-	-	-	10	5
July	342	15	1,218	-	-	-	-	-	-	300.9	15	1,010	-	-	-	22.3	-	-	18.8	10	208
Aug.	393	14	1,225	-	-	-	-	-	-	325.3	14	1,012	-	-	-	36.6	-	-	31.2	10	213
Sep.	280	14	1,308	-	-	-	-	-	-	244.8	14	1,085	-	-	-	30.7	-	-	4.7	10	223
Oct.	319	12	1,280	-	-	-	-	-	-	271.2	12	1,059	-	-	-	31.5	-	-	16.3	10	221
Nov.	311	12	1,309	-	-	-	-	-	-	249.5	12	1,085	-	-	-	31.6	-	-	30.0	10	224
Dec.	305	12	1,295	-	-	-	-	-	-	263.9	12	1,075	-	-	-	24.6	-	-	17.0	11	220
2019**																					
Jan.	325	11	1,242	-	-	-	-	-	-	272.0	11	1,025	-	-	-	28.7	-	-	24.8	11	217
Feb.	278	12	1,262	-	-	-	-	-	-	243.3	12	1,070	-	-	-	22.1	-	-	12.5	11	192
Mar.	324	13	1,289	-	-	-	-	-	-	286.0	13	1,097	-	-	-	18.4	-	-	20.0	11	192
Apr.	301	13	1,290	-	-	-	-	-	-	250.1	13	1,098	-	-	-	16.1	-	-	34.6	11	192

Source : Department of Mineral and Geoscience Malaysia

Note : \* Aggregate number of mines does not include Retreatment units

\*\* Preliminary



**MALAYSIAN REFINED TIN PRODUCTION  
IMPORT OF TIN-IN-CONCENTRATES  
AND EXPORT OF TIN METAL (In Tonnes)**

Period	Production of Tin-In-Concentrates	Imports of Tin-In-Concentrates	Refined Tin Production	Local Consumption	Exports of Tin Metal
2001	4,972	24,102	30,417	4,047	27,271
2002	4,214	22,904	30,887	3,896	27,075
2003	3,358	7,661	18,250	4,081	15,164
2004	2,742	26,901	33,914	4,652	29,820
2005	2,857	31,087	37,782	4,133	32,304
2006	2,398	15,979	22,850	4,904	19,267
2007	2,263	21,341	25,563	3,564	15,738
2008	2,602	24,350	31,690	3,521	21,813
2009	2,412	22,901	35,443	2,944	18,014
2010	2,668	30,589	38,771	2,942	33,697
2011	3,343	30,031	40,281	2,341	42,302
2012	3,725	26,537	37,823	2,083	37,212
2013	3,697	30,273	32,633	1,835	36,363
2014	3,777	31,610	35,018	1,581	35,221
2015	4,125	31,965	30,260	1,900	38,319
2016	4,158	30,536	26,849	2,238	27,470
2017	3,894	29,866	27,211	2,707	27,147
2018*	3,835	27,450	27,115	1,964	27,342
2017					
Jan.	351	2,377	1,683	171	1,530
Feb.	316	2,033	2,167	203	2,635
Mar.	306	1,723	2,044	322	2,091
Apr.	275	2,441	1,832	263	1,777
May.	338	2,598	2,572	218	2,326
Jun.	306	2,446	2,121	258	1,732
Jul.	333	3,154	2,605	320	2,768
Aug.	328	2,428	2,812	178	3,106
Sep.	313	2,565	2,149	179	2,275
Oct.	322	2,775	2,256	225	2,116
Nov.	368	2,740	2,478	204	2,510
Dec.	338	2,586	2,492	166	2,281
2018*					
Jan.	308	2,424	2,060	171	1,950
Feb.	297	2,046	2,214	190	2,009
Mar.	323	2,488	2,340	158	2,584
Apr.	330	2,430	2,111	192	2,401
May.	336	2,895	2,343	171	2,435
Jun.	292	2,494	2,219	192	2,162
Jul.	342	2,609	2,571	162	2,687
Aug.	393	2,619	2,470	215	2,257
Sep.	280	1,653	2,068	149	1,899
Oct.	319	2,284	2,282	117	2,138
Nov.	311	1,844	2,563	102	2,746
Dec.	305	1,664	1,874	145	2,074
2019*					
Jan.	325	2,169	1,887	125	2,205
Feb.	278	1,700	1,912	99	1,694
Mar.	324	2,263	2,169	134	2,195
Apr.	301	2,090	2,145	125	2,097
May.	n.y.a	1,842	1,836	145	1,891
Jun.	n.y.a	2,376	1,536	129	1,630

\* : Preliminary  
n.y.a : not yet available  
Sources : Department of Statistics, Malaysia  
Department of Mineral and Geoscience Malaysia  
Malaysia Smelting Corporation Bhd.



### DOMESTIC TIN CONSUMPTIONS (In Tonnes)

PERIOD	TOTAL CONSUMPTION	SOLDER *	TINPLATE	PEWTER	OTHERS *
2001	4,045	1,916	518	654	958
2002	3,896	2,108	557	593	637
2003	4,080	2,194	636	537	713
2004	4,656	2,864	784	399	609
2005	4,133	2,692	679	264	498
2006	4,904	2,054	613	210	2,027
2007	3,564	2,513	680	219	152
2008	3,521	2,511	685	147	178
2009	2,944	1,537	681	100	626
2010	2,942	1,981	683	169	109
2011	2,341	1,458	665	108	110
2012	2,083	1,333	573	104	73
2013	1,835	1,078	561	100	96
2014	1,581	922	520	82	57
2015	1,900	1,133	608	77	82
2016	2,238	1,314	750	86	88
2017	2,707	1,348	737	63	559
2018**	1,964	1,019	759	39	147
2017					
Jan.	171	102	54	12	3
Feb.	203	133	64	2	4
Mar.	322	139	76	13	94
Apr.	263	100	72	2	89
May	218	150	61	3	4
Jun	258	108	61	12	77
July	320	143	76	1	100
Aug.	178	79	62	2	35
Sep.	179	101	40	1	37
Oct.	225	104	68	4	49
Nov.	204	95	49	1	59
Dec.	166	94	54	10	8
2018**					
Jan.	171	101	57	3	10
Feb.	190	133	54	1	2
Mar.	158	93	49	13	3
Apr.	192	103	78	1	10
May	171	106	56	1	8
Jun.	192	116	61	13	2
Jul.	162	99	60	0	3
Aug.	215	132	75	1	7
Sep.	149	62	62	1	24
Oct.	117	23	69	1	24
Nov.	102	11	61	0	30
Dec.	145	40	77	4	24
2019**					
Jan.	125	66	51	1	7
Feb.	99	60	35	0	4
Mar.	134	69	56	1	8
Apr.	125	51	64	2	8
May	145	70	62	1	12
Jun.	129	66	56	1	6
Jul.	144	91	47	3	3
Aug.	n.y.a	n.y.a	51	n.y.a	n.y.a
Sep.	n.y.a	n.y.a	60	n.y.a	n.y.a

\* : The figures include high-grade tin (99.9% Sn) imported for consumption.

\*\* : Preliminary.

n.y.a : not yet available

Sources : Department of Mineral and Geoscience Malaysia  
Malaysia Smelting Corporation Bhd

Note : Local consumption of tin metal refers to the use of tin in a particular application.  
Sales to manufacturing industries have been used as proxy for consumption except in the case of manufacture of tinplate for which actual consumption data are available.

**WORLD MINE PRODUCTION  
(In Tonnes)**

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019	2019	2019	2019	2019	2019	2019
									Jan	Feb	Mar	Apr	May	June	July	Aug
<b>EUROPE</b>																
Portugal	45	24	24	84	96	48	56	60	5	5	5	5	9	9	9	9
Russia	612	600	600	240	240	1,140	702	1,200	100	100	100	100	100	100	100	100
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AFRICA</b>																
Democ.Rep Congo	4,800	2,462	5,220	4,116	2,977	4,128	7,145	9,000	800	800	800	800	800	800	500	500
Nigeria	1,800	2,400	2,590	2,425	2,100	3,827	5,964	8,784	300	300	540	540	540	540	540	500
Rwanda	4,167	3,493	3,600	4,245	2,017	2,621	3,508	2,400	200	200	250	300	300	300	200	172
South Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Egypt	-	-	87	12	-	-	-	-	-	-	-	-	-	-	-	-
<b>ASIA</b>																
China	127,400	115,900	148,981	177,300	146,600	153,100	163,000	157,500	11,500	13,900	14,300	13,300	13,700	13,700	13,900	13,100
Indonesia	78,000	78,000	84,000	69,600	68,400	60,000	60,000	84,000	7,000	7,000	7,200	7,200	7,200	7,200	7,200	7,200
Kazakhstan	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-
Laos	1,200	766	745	840	815	1,308	779	566	328	199	235	235	235	235	235	140
Malaysia	3,346	3,639	3,685	3,600	3,731	4,123	3,967	3,999	340	340	340	340	340	340	340	340
Mongolia	24	24	44	72	240	36	50	60	5	5	10	10	10	10	10	10
Myanmar	534	658	8,943	17,475	2,400	47,435	58,883	45,900	5,900	627	2,420	2,264	2,700	2,300	2,300	2,400
Thailand	252	199	119	131	45	124	705	720	60	60	60	60	60	60	60	60
Vietnam	5,400	5,400	5,400	5,400	3,600	5,520	4,560	4,560	380	380	300	300	300	300	460	460
<b>AMERICA</b>																
Bolivia	20,373	19,701	16,976	19,548	20,135	17,614	17,973	17,259	1,450	1,450	1,500	1,500	1,500	1,500	1,500	1,500
Brazil	8,200	10,800	13,800	13,800	13,800	25,500	18,000	18,000	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Peru	29,022	26,097	23,661	12,105	19,511	18,789	17,790	18,601	1,582	1,622	1,841	1,607	1,762	1,800	1,700	1,760
U.S.A.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>OCEANIA</b>																
Australia	15,400	6,014	5,888	7,042	7,056	6,635	7,217	6,871	600	600	687	700	550	549	550	575
<b>WORLD TOTAL</b>	<b>300,575</b>	<b>276,183</b>	<b>324,363</b>	<b>349,035</b>	<b>315,363</b>	<b>351,948</b>	<b>370,299</b>	<b>379,482</b>	<b>32,050</b>	<b>29,088</b>	<b>32,088</b>	<b>30,761</b>	<b>31,606</b>	<b>31,243</b>	<b>31,104</b>	<b>30,326</b>

Source : World Bureau of Metal Statistics

## WORLD REFINED TIN CONSUMPTION (In Tonnes)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019	2019	2019	2019	2019	2019	2019
									Jan	Feb	Mar	Apr	May	June	July	Aug
<b>EUROPE</b>																
Austria	3,200	2,978	3,184	3,715	3,438	3,323	4,148	3,983	368	350	274	300	300	300	200	300
Belgium	6,584	5,231	5,400	2,400	2,400	2,400	697	720	60	60	60	60	60	60	300	300
Bulgaria	520	500	501	360	144	101	1	117	20	20	50	50	20	15	15	15
Czech Republic	470	474	379	300	460	515	532	603	55	55	51	50	64	104	100	50
Denmark	108	13	24	11	8	3	17	7	1	1	1	1	2	2	2	0
Finland	131	121	72	244	211	86	51	77	8	8	7	7	9	8	6	10
France	4,839	4,323	4,616	5,203	4,382	4,736	5,456	6,080	540	500	441	287	566	321	422	318
Germany	19,788	17,592	17,896	18,835	17,931	18,242	20,284	20,236	1,421	1,400	1,941	1,900	1,667	1,600	1,300	1,500
Greece	1,350	630	616	676	655	632	600	646	51	50	50	50	50	50	50	50
Hungary	106	105	111	109	163	145	1,177	2,050	150	150	160	160	176	160	160	160
Ireland	48	7	3	3	7	4	0	2	0	0	0	0	0	0	0	0
Italy	4,807	6,111	3,096	3,760	3,017	3,495	3,974	4,678	380	380	498	375	559	600	600	400
Netherlands	4,867	4,500	7,399	7,200	6,000	6,000	6,000	6,000	500	500	500	500	500	500	500	500
Norway	5	9	5	3	3	0	1	1	0	0	0	0	0	0	0	1
Poland	1,582	2,085	1,908	2,520	2,647	3,669	3,537	3,723	350	350	260	260	263	260	20	20
Portugal	529	435	356	482	408	554	856	891	148	148	51	50	144	99	100	17
Romania	1,140	960	3,200	960	840	336	516	866	30	30	70	70	20	50	50	30
Russia	2,960	3,039	3,196	1,516	1,262	995	1,339	495	69	6	58	62	51	92	137	218
Slovakia	400	240	202	404	501	465	645	767	29	29	73	70	48	41	40	48
Spain	2,032	1,303	1,913	1,470	1,864	1,495	1,605	1,652	130	130	60	60	206	100	100	80
Sweden	5,742	2,910	4,385	6,435	5,682	6,492	5,457	6,020	603	600	208	200	968	900	600	500
Switzerland	200	55	861	66	81	47	69	45	1	1	6	6	3	4	4	1
United Kingdom	703	780	821	794	962	979	936	961	78	80	50	55	8	7	12	2
Yugoslavia	2,390	1,320	1,140	1,080	1,080	1,080	1,080	1,080	90	90	90	90	90	90	90	90
Other Europe	900	720	720	720	720	720	720	720	60	60	60	60	60	60	60	60
<b>AFRICA</b>																
Egypt	400	110	104	0	155	107	119	225	10	10	20	20	13	20	15	10
Morocco	84	84	29	14	16	21	15	22	5	5	5	5	2	1	1	0
Nigeria	300	300	300	300	300	300	623	1,436	200	200	126	100	100	100	80	80
South Africa	1,464	1,200	1,152	1,243	1,129	1,047	957	633	65	48	50	44	49	59	91	8
Other Africa	900	720	720	720	720	720	720	720	60	60	60	60	60	60	60	60
<b>ASIA</b>																
China	180,812	176,404	168,194	192,610	175,842	191,415	183,391	174,183	13,279	13,936	14,436	14,043	14,028	17,562	18,932	17,231
Hong Kong	1,800	1,800	1,800	1,800	1,800	1,800	1,800	3,300	300	300	300	300	300	300	300	300
India	9,738	9,985	9,941	11,870	12,857	9,088	9,861	11,365	690	600	953	950	959	900	1,000	800
Indonesia	1,200	1,200	600	1,200	1,200	1,200	1,200	1,200	100	100	100	100	100	100	100	100
Iran	2,400	1,200	797	737	1,129	987	1,058	1,573	132	275	189	225	230	230	230	230
Japan	26,936	27,657	28,272	27,090	26,762	26,113	29,111	28,084	2,671	2,282	2,412	1,988	2,382	2,429	2,567	1,900
Kazakhstan	1,044	606	602	431	423	490	431	405	0	0	20	10	40	60	80	60
Malaysia	4,440	4,440	3,900	3,900	1,560	1,560	1,560	1,560	130	130	130	130	130	130	130	130
Pakistan	480	360	528	618	480	279	300	489	70	70	60	60	60	60	60	60
Philippines	217	122	143	225	118	506	220	307	76	70	72	60	102	100	60	15
Singapore	2,000	2,000	2,000	1,998	2,000	1,960	1,920	1,920	160	160	160	160	160	160	160	160
South Korea	14,404	16,238	14,533	13,772	13,091	14,199	13,112	13,927	1,076	940	922	1,107	670	1,185	1,387	1,400
Syria	180	120	0	120	120	120	120	120	10	10	10	10	0	0	0	0
Taiwan	8,093	7,071	5,883	4,583	4,703	4,140	4,494	4,576	380	400	518	300	620	407	400	343
Thailand	3,540	3,538	4,500	3,952	3,074	3,131	4,259	3,000	250	250	250	250	250	250	250	250
Turkey	2,422	2,135	2,337	2,259	2,136	2,416	3,110	3,215	141	142	146	443	282	297	172	263
United Arab Emirates	3,000	2,400	2,400	2,400	4,200	4,800	4,800	3,600	300	300	600	300	300	300	300	300
Vietnam	2,000	2,000	3,600	5,457	6,000	6,000	6,000	4,200	500	500	300	300	300	300	300	300
Other Asia	1,860	2,160	2,160	2,160	2,160	2,160	2,160	2,160	180	180	180	180	180	180	180	180
<b>AMERICA</b>																
Argentina	778	752	882	560	833	878	596	674	46	0	17	44	41	19	38	10
Bolivia	480	480	480	480	480	480	480	480	40	40	40	40	40	40	40	40
Brazil	5,628	3,546	6,073	4,600	4,606	17,258	10,009	9,357	946	1,018	588	751	631	965	706	756
Canada	2,882	2,601	2,360	2,740	3,238	2,887	2,562	2,489	177	150	195	195	198	215	126	208
Chile	242	199	132	96	152	111	82	95	14	0	21	5	7	5	21	0
Colombia	348	320	308	286	243	300	280	271	31	30	31	20	14	42	0	30
Mexico	3,898	3,493	3,393	3,769	3,615	4,160	4,197	4,906	400	400	400	400	396	317	300	500
Peru	216	216	220	216	216	216	216	216	18	18	18	18	18	18	18	18
U.S.A.	30,365	30,691	29,193	28,800	30,644	29,455	31,476	34,664	3,980	3,980	3,703	2,678	2,123	1,793	2,736	1,342
Venezuela	335	205	187	178	90	59	19	16	1	1	1	1	1	1	1	1
Other America	600	420	420	420	420	420	420	420	35	35	35	35	35	35	35	35
<b>OCEANIA</b>																
Australia	579	480	516	427	467	215	259	284	45	20	46	40	0	45	50	50
New Zealand	66	73	19	18	19	7	49	46	5	8	0	9	0	5	3	5
<b>WORLD TOTAL</b>	<b>381,772</b>	<b>360,887</b>	<b>359,960</b>	<b>381,439</b>	<b>361,943</b>	<b>387,563</b>	<b>381,702</b>	<b>378,582</b>	<b>31,667</b>	<b>31,668</b>	<b>32,135</b>	<b>30,106</b>	<b>30,657</b>	<b>34,115</b>	<b>35,799</b>	<b>31,847</b>

Source : World Bureau of Metal Statistics