

Mineral Industry Surveys

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ALUMINUM IN DECEMBER 2018

Domestic primary aluminum production in December 2018 was 95,000 metric tons (t). The average daily production in December was 3,050 t, 4% more than that in November 2018, 48% more than that in December 2017 and 50% more than that in December 2016 (fig. 1, table 1).

Total aluminum recovered from scrap in December 2018 was 285,000 t, 4% less than that in November 2018 but slightly more than that in December 2017, and essentially unchanged from the amount in December 2016. Of this, 164,000 t of aluminum was recovered from new scrap and 121,000 t was recovered from old scrap (fig. 1, table 1).

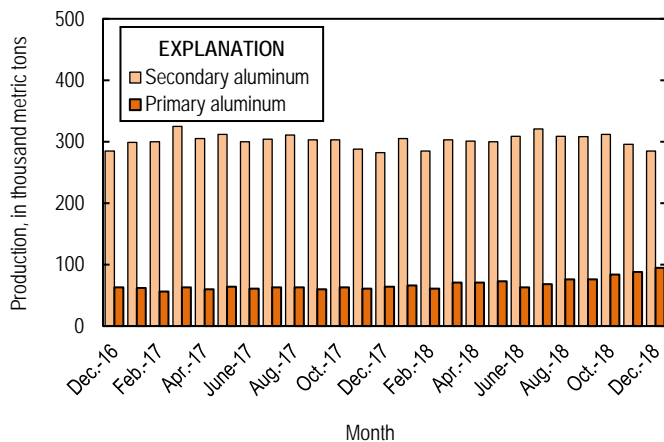


Figure 1. Monthly domestic primary and secondary aluminum production from December 2016 through December 2018.

Prices and Stocks

The December 2018 average U.S. market price of primary aluminum ingot decreased slightly from that in November 2018 to \$1.06 per pound. The average cash price in December of primary aluminum ingot on the London Metal Exchange (LME) was essentially unchanged from that in November 2018 at \$0.876 per pound (fig. 2, table 6).

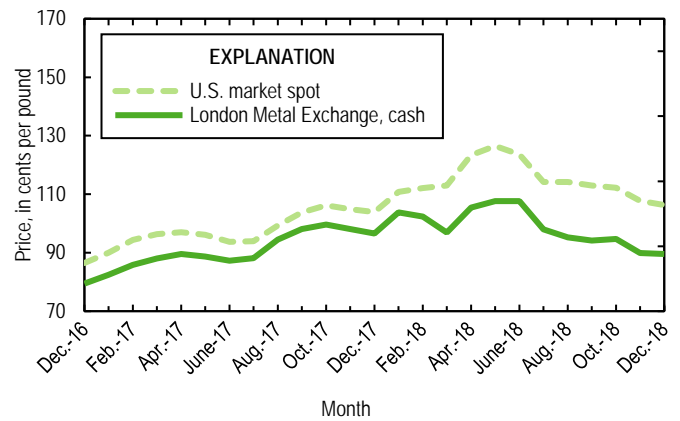


Figure 2. Average monthly prices for primary aluminum from December 2016 through December 2018. Source: Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses in the United States decreased to 53,050 t at the end of December from 57,175 t at the end of November. Inventories of secondary aluminum (North American Secondary Aluminum Alloy Contract) in LME-approved warehouses in the United States decreased to 133,200 t at the end of December from 137,680 t at the end of November (London Metal Exchange Ltd., 2018a, b).

U.S. Trade

Total imports for consumption of aluminum in 2018 (table 8) were 10% less than those in 2017; imports of crude metal and alloys decreased by 14%, imports of scrap were essentially unchanged, and imports of semifabricated products increased slightly. Canada continued to be the leading source of imported aluminum materials, supplying 44% of all aluminum imports during 2018, followed by the United Arab Emirates (9%), Russia (6%), and China (4%). Canada accounted for 52% of crude metal, 16% of semifabricated products, and 58% of scrap imports. China accounted for 18% of semifabricated product imports. Mexico was the source of 25% of scrap imports.

Total exports of aluminum (table 9) increased by 6% during 2018 compared with those of the previous year. Exports of crude metal and alloys and scrap increased by 6% and 12%, respectively, but exports of semifabricated aluminum products decreased by 3% compared with those in 2017. The leading destinations for total aluminum products in 2018, in descending order of quantity, were Mexico (26%), Canada (20%), and China (17%). Mexico and Canada were the leading destination for exports of crude metal and alloys, receiving 50% and 42%, respectively. Mexico and Canada were also the leading destination for exports of semifabricated aluminum products, receiving 45% and 37%, respectively. The leading destinations for scrap were China, the Republic of Korea, India, Mexico, and Malaysia receiving 29%, 14%, 12%, 11%, and 10%, respectively.

Update

Century Aluminum Co. announced that it will shut down one of the potlines at the 250,000-metric-ton-per-year (t/yr) smelter in Hawesville, KY, for maintenance in March or April. Two of the smelter's five potlines were reportedly 2 years overdue for maintenance. Three other potlines were restarted in 2018 and the rampup was scheduled to be completed in March, then the maintenance work on one potline would begin. (See Aluminum in September 2018.) Century also signed a 2-year power supply agreement with Santee Cooper for its smelter in Mt. Holly, SC.

The Mt. Holly smelter was producing at one-half of its 229,000-t/yr capacity (Century Aluminum Co., 2019; Matyi, 2019; Roh, 2019).

References Cited

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- Matyi, Bob, 2019, Century to restart three Hawesville potlines, one to shut: Platts Metals Daily, v. 8, no. 38, February 22, p. 8–9.
- Roh, Michael, 2019, Century cuts 2019 cash flow break-even price by \$75 per tonne: Fastmarkets, v. 127, no. 9–1, February 25, p. 10.

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TABLE 1
COMPONENTS OF ALUMINUM SUPPLY¹

(Thousand metric tons)

Period	Primary production	Secondary recovery ²			Imports for consumption			Total new supply ³	Stocks, end of period ⁴
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2017	741	2,050	1,590	3,630	4,830	1,380	6,200	10,600	1,470
2017, December	64	165	117	282	400	118	518	864	1,470
2018: ^P									
January	66	177	128	305	333	167	500	871	1,460
February	61	161	124	285	374	99	473	819	1,450
March	71	174	129	303	555	126	681	1,060	1,430
April	71	169	132	301	381	122	503	875	1,460
May	73	169	131	300	349	120	469	842	1,490
June	63	175	134	309	297	99	396	767	1,470
July	68	189	132	321	332	105	437	826	1,520
August	76	180	130	309	292	104	396	781	1,560
September	76	177	131	308	313	105	418	802	1,560
October	84	177	135	312	306	119	425	821	1,570
November	88	163	132	296	294	122	416	799	1,580
December	95	164	121	285	306	122	428	807	NA
January–December	891	2,070	1,560	3,630	4,130	1,410	5,540	10,100	NA

^PPreliminary. NA Not available.

¹Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

²Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

³Primary production, secondary recovery, and imports for consumption.

⁴Inventory levels reflect total for U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM
PURCHASED NEW AND OLD ALUMINUM SCRAP¹

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery	Con-sump-tion	Metal recovery
	2017	2,200	1,650	2,060	1,880	101	93	4	4	4,360
2017, December	182	138	148	136	8	8	(2)	(2)	339	282
2018: ²										
January	179	136	175	161	8	8	(2)	(2)	363	305
February	173	130	160	147	8	8	(2)	(2)	342	285
March	164	130	180	166	8	8	(2)	(2)	353	303
April	165	131	177	162	8	8	(2)	(2)	351	301
May	168	134	173	159	8	8	(2)	(2)	350	300
June	179	137	179	164	8	8	(2)	(2)	366	309
July	182	140	188	173	8	8	(2)	(2)	378	321
August	183	142	174	159	8	8	(2)	(2)	366	309
September	181	140	175	160	8	8	(2)	(2)	365	308
October	188	141	178	163	8	8	(2)	(2)	375	312
November	181	135	167	152	8	8	(2)	(2)	356	296
December	179	135	155	142	8	8	(2)	(2)	342	285
January–December	2,120	1,630	2,080	1,910	101	93	4	4	4,310	3,630

²Preliminary.

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

²Less than ½ unit.

TABLE 3
 CONSUMPTION OF AND RECOVERY FROM PURCHASED
 NEW AND OLD ALUMINUM SCRAP IN DECEMBER 2018¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	149,000	179,000	112,000	135,000
Independent mill fabricators	144,000	155,000	131,000	142,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	266	320	266	320
Total	300,000	342,000	251,000	285,000

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

TABLE 4
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED
PIG IN DECEMBER 2018¹

(Metric tons)

	December			January–December ²		
	Stocks, opening ²	Net receipts ³	Melted or consumed	Stocks, closing	Net receipts ³	Melted or consumed
New scrap:						
Extrusion	15,300	69,600	69,600	15,300	853,000	853,000
Can stock clippings	4,630	19,900	19,800	4,680	256,000	257,000
Other wrought sheet/clippings	21,600	37,900	34,500	25,000	519,000	503,000
Casting	3,270	5,700	5,810	3,150	65,700	65,700
Borings and turnings	3,280	10,900	11,000	3,160	119,000	120,000
Dross and skimmings	10,300	39,200	39,200	10,300	428,000	428,000
Total new scrap	58,400	183,000	180,000	61,600	2,240,000	2,230,000
Old scrap:						
Used castings	8,230	25,000	25,000	8,240	301,000	301,000
Used extrusion	7,830	10,800	10,800	7,830	142,000	143,000
Used cans (shredded, loose, baled)	9,520	50,600	50,700	9,470	624,000	623,000
Other wrought products	11,900	27,300	23,500	15,700	356,000	357,000
Fragmentized shredder (auto shredder)	3,260	9,740	9,890	3,110	117,000	117,000
Total old scrap	40,700	123,000	120,000	44,300	1,540,000	1,540,000
Sweated pig						
	--	--	--	--	--	--
Total all classes	99,100	307,000	300,000	106,000	3,780,000	3,770,000

-- Zero.

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

²May include revisions to previously published data.

³Includes data on imported aluminum-base scrap.

TABLE 5
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED
STATES IN DECEMBER 2018^{1,2}

(Metric tons)

	December				January–December	
	Stocks, opening ³	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,630	1,730	1,840	2,520	22,600	21,800
380 and variations	6,190	14,700	14,700	6,190	176,000	176,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,160	2,370	2,370	1,160	28,400	28,400
No. 319 and variations	2,850	3,670	3,670	2,850	44,400	44,200
F-132 alloy and variations	162	196	196	162	2,350	2,350
Al-Zn alloys	243	94	94	243	1,130	1,130
Al-Si alloys (0.6% to 2.0% Cu)	103	92	92	103	1,100	1,100
Al-Cu alloys (1.5% Si, max.)	178	67	67	178	809	809
Other ⁴	4,660	10,400	10,100	5,010	121,000	121,000
Wrought alloys, extrusion billets	10,100	54,700	54,700	10,100	657,000	656,000
Total all alloys	28,300	88,100	87,800	28,600	1,060,000	1,050,000
Less:						
Primary aluminum consumed	XX	15,800	XX	XX	190,000	XX
Primary silicon consumed	XX	1,990	XX	XX	23,900	XX
Other alloying ingredients consumed	XX	946	XX	XX	11,700	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot ⁵						
	XX	69,300	XX	XX	829,000	XX

XX Not applicable.

¹Excludes integrated aluminum companies.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

⁵No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6
 AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES
 AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2017:		
December	103.908	93.911
January–December	98.298	89.254
2018:		
January	110.830	100.429
February	112.050	99.091
March	112.929	94.173
April	123.388	101.866
May	126.488	103.875
June	123.607	101.603
July	114.136	95.177
August	114.193	92.764
September	112.963	91.739
October	112.207	92.254
November	107.763	87.871
December	106.294	87.588
January–December	114.737	95.703

Source: Platts Metals Week.

TABLE 7
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet	Old cast	Turnings (clean and dry)
2017:					
December	69.95	62.55	56.50	57.95	54.70
January–December	70.93	63.62	58.44	59.63	58.62
2018:					
January	75.57	63.48	58.90	59.90	56.36
February	75.66	65.29	61.21	62.21	58.45
March	75.59	66.00	61.91	63.00	58.95
April	81.81	66.29	60.83	62.76	57.71
May	84.41	68.00	62.00	63.50	63.50
June	85.29	67.79	61.95	63.40	57.31
July	77.40	64.55	57.93	58.52	54.48
August	73.37	60.24	52.87	51.70	49.80
September	65.87	57.37	47.13	46.21	43.84
October	63.50	55.87	45.78	44.30	42.30
November	59.35	54.62	45.45	44.50	41.00
December	58.12	53.25	45.50	45.00	40.62
January–December	73.00	61.90	55.12	55.42	52.03

Source: American Metal Market.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN DECEMBER 2018¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	December	January–	December	January–	December	January–	December	January–
		December		December		December		December
Argentina	17,400	169,000	--	38	--	--	17,400	169,000
Australia	22,000	144,000	129	838	214	2,290	22,300	147,000
Austria	--	67	3,360	36,400	--	--	3,360	36,400
Bahrain	7,950	129,000	4,360	58,800	--	--	12,300	188,000
Belgium	--	490	470	7,280	--	--	470	7,770
Brazil	101	10,600	2,500	28,100	22	4,970	2,620	43,800
Canada	162,000	2,130,000	12,700	230,000	29,900	402,000	204,000	2,760,000
Chile	--	--	--	2	327	5,610	327	5,610
China	1,340	4,510	10,600	254,000	--	473	12,000	259,000
Colombia	--	--	359	8,610	--	1,830	359	10,400
Costa Rica	--	--	--	14	195	3,460	195	3,470
El Salvador	--	--	125	1,560	130	2,800	255	4,360
France	201	13,000	2,100	35,500	--	2,390	2,300	50,900
Germany	19	532	5,890	53,000	108	5,290	6,020	58,800
Greece	--	--	3,500	29,300	16	353	3,520	29,700
Guatemala	--	--	--	--	1,060	12,900	1,060	12,900
Honduras	--	--	70	264	100	1,640	170	1,910
Hong Kong	25	51	747	8,160	--	665	772	8,870
India	9,410	181,000	4,790	49,400	5	91	14,200	230,000
Indonesia	19	36	8,810	97,900	--	--	8,830	97,900
Italy	--	842	3,580	20,800	--	--	3,580	21,700
Japan	--	108	4,510	37,900	59	1,160	4,570	39,100
Korea, Republic of	753	1,050	2,330	22,500	1,620	17,900	4,710	41,500
Malaysia	--	2,180	614	8,800	--	--	614	11,000
Mexico	--	12,500	2,220	46,500	11,900	176,000	14,200	234,000
Netherlands	50	1,480	503	5,230	30	241	583	6,950
New Zealand	746	8,510	--	1	--	96	746	8,600
Norway	6,190	25,600	68	484	--	--	6,260	26,100
Oman	692	35,100	8,480	66,100	--	--	9,170	101,000
Qatar	8,230	114,000	--	3	--	--	8,230	114,000
Romania	--	--	884	6,560	19	76	903	6,640
Russia	28,300	347,000	1,810	22,100	--	--	30,100	369,000
Saudi Arabia	2,780	49,000	2,320	10,400	--	2,270	5,100	61,700
South Africa	1,780	94,400	8,990	67,700	--	--	10,800	162,000
Spain	131	4,910	1,340	8,210	478	5,590	1,950	18,700
Sweden	--	--	997	8,640	--	5	997	8,640
Switzerland	--	--	329	3,550	--	15	329	3,570
Taiwan	--	141	4,310	39,300	42	2,860	4,350	42,300
Thailand	35	849	2,990	13,200	38	1,920	3,070	15,900
Turkey	--	--	4,940	29,600	--	3,620	4,940	33,200
United Arab Emirates	36,000	587,000	717	3,340	189	2,040	36,900	592,000
United Kingdom	--	14,700	1,590	12,800	72	3,860	1,660	31,400
Venezuela	--	49,600	16	1,540	204	7,840	220	58,900
Vietnam	--	253	1,410	24,000	--	679	1,410	24,900
Other	36	1,470	6,920	52,900	1,670	23,200	8,620	77,600
Total	306,000	4,130,000	122,000	1,410,000	48,400	695,000	477,000	6,240,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 9
U.S. EXPORTS OF ALUMINUM IN DECEMBER 2018¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	December	January–	December	January–	December	January–	December	January–
		December		December		December		December
Australia	22	578	169	1,970	--	3	191	2,550
Belgium	3	90	114	1,450	841	11,800	958	13,300
Bolivia	--	--	--	639	--	--	--	639
Brazil	4	163	329	3,840	2,210	18,300	2,540	22,300
Canada	7,270	123,000	19,800	382,000	7,430	104,000	34,500	609,000
China	59	1,060	1,760	26,400	43,400	505,000	45,300	532,000
Colombia	--	82	242	1,910	--	15	242	2,010
Dominican Republic	81	1,940	82	1,190	--	--	163	3,130
France	375	7,220	235	9,480	242	2,660	852	19,400
Germany	13	1,690	268	7,490	1,270	7,790	1,560	17,000
Guatemala	--	3	67	7,530	--	--	67	7,540
Hong Kong	--	45	152	1,520	4,070	41,400	4,230	43,000
India	35	312	333	4,360	21,600	216,000	21,900	221,000
Indonesia	--	19	5	662	9,920	76,000	9,920	76,700
Ireland	--	42	44	387	--	--	44	429
Israel	--	61	1,130	10,900	--	48	1,130	11,000
Italy	--	119	129	1,410	311	1,300	440	2,830
Jamaica	--	27	4	112	--	--	4	139
Japan	184	1,590	2,020	17,200	1,670	23,800	3,870	42,500
Korea, Republic of	86	560	2,600	30,700	22,200	241,000	24,800	272,000
Malaysia	--	74	359	5,020	15,800	172,000	16,200	177,000
Mexico	9,590	146,000	30,100	464,000	15,200	195,000	54,800	805,000
Netherlands	2	113	29	347	152	4,010	183	4,470
New Zealand	--	7	30	708	--	9	30	724
Norway	--	3	7	131	--	--	7	134
Pakistan	--	13	--	340	1,190	14,600	1,190	15,000
Panama	--	9	21	149	--	160	21	318
Philippines	5	123	3	288	741	5,220	749	5,640
Poland	13	124	49	831	--	171	62	1,130
Romania	2	157	10	673	--	--	12	830
Russia	--	31	7	138	1,080	12,000	1,090	12,200
Saudi Arabia	--	1	101	1,950	35	55	136	2,010
Singapore	42	895	170	4,360	1,490	2,300	1,700	7,560
Spain	--	115	45	1,260	472	1,990	517	3,360
Taiwan	104	3,710	250	7,940	12,500	69,200	12,900	80,900
Thailand	--	361	141	4,370	1,190	15,000	1,330	19,800
Turkey	2	129	278	4,520	11	319	291	4,970
United Arab Emirates	97	779	11	921	583	2,960	691	4,660
United Kingdom	116	616	668	10,500	299	2,560	1,080	13,600
Vietnam	--	--	52	156	--	4,380	52	4,540
Other	5	553	341	4,980	1,100	10,900	1,450	16,400
Total	18,100	292,000	62,200	1,020,000	167,000	1,760,000	247,000	3,080,000

-- Zero.

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

Source: U.S. Census Bureau.