

Mineral Industry Surveys

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ALUMINUM IN DECEMBER 2017

Domestic primary aluminum production in December 2017 was 64,000 metric tons (t). The average daily production in December was 2,060 t, slightly more than that in November 2017 and December 2016, but 44% less than that in December 2015. Primary aluminum production in 2017 decreased by 12% and by 53% compared with that in 2016 and 2015, respectively (fig. 1, table 1).

Total aluminum recovered from scrap in December 2017 was 282,000 t, slightly less than that in November 2017 and December 2016, but 8% more than in December 2015. Of this, 163,000 t of aluminum was recovered from new scrap and 119,000 t was recovered from old scrap. Total recovery from scrap in 2017 was slightly more than that in 2016 and 8% more than that in 2015 (fig. 1, table 1).

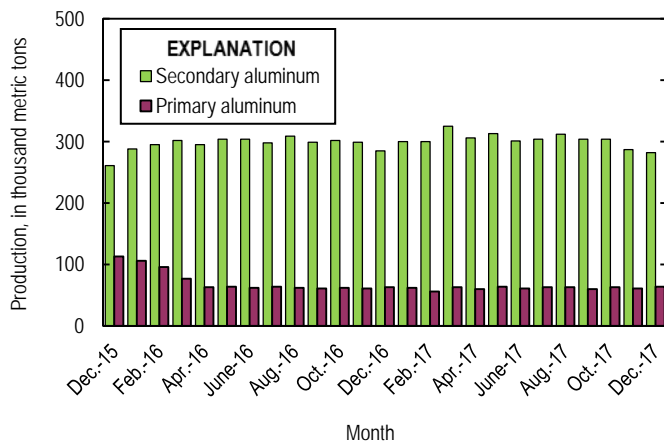


Figure 1. Monthly domestic primary and secondary aluminum production from December 2015 through December 2017. Source: U.S. Geological Survey.

U.S. Trade

Total imports for consumption of aluminum in 2017 (table 8) were 14% more than those in 2016; imports of crude metal and alloys increased by 14%, imports of semifabricated products increased by 17%, and imports of scrap increased by 12%. Canada continued to be the leading source of imported

aluminum materials, supplying 45% of all aluminum imports during 2017, followed by Russia (10%), the United Arab Emirates (9%), and China (7%). Canada accounted for 51% of crude metal, 18% of semifabricated products, and 55% of scrap imports. China accounted for 33% of semifabricated product imports. Mexico was the source of 25% of scrap imports.

Total exports of aluminum (table 9) increased slightly in 2017 compared with those of the previous year. Exports of crude metal and alloys increased by 5%, exports of semifabricated aluminum products decreased by 14%, and exports of aluminum scrap increased by 16%. The leading destinations for total aluminum products during 2017, in descending order of quantity, were China (30%), Mexico (25%), and Canada (21%).

Prices and Stocks

The December 2017 average U.S. market price of primary aluminum ingot and average cash price on the London Metal Exchange Ltd. (LME) decreased slightly from those in November 2017 to \$1.039 per pound and \$0.939 per pound, respectively (fig. 2, table 6).

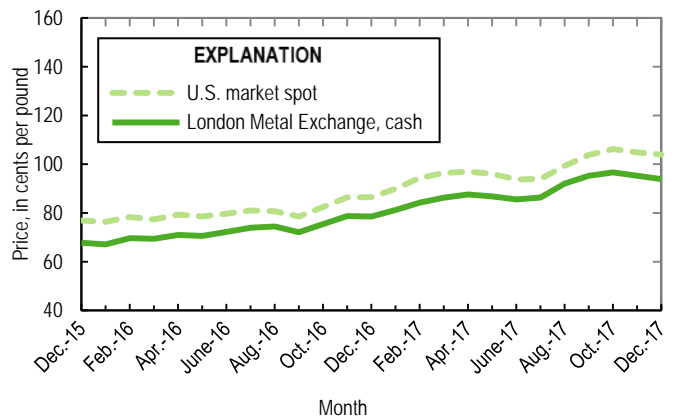


Figure 2. Average monthly prices for primary aluminum from December 2015 through December 2017. Source: Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses in the United States decreased to 65,825 t at the end of December from 73,600 t at the end of November (London Metal Exchange Ltd., 2017a, b).

Update

On February 16, 2018, the Secretary of Commerce released the recommendations in a report on the impact of aluminum imports on national security that was submitted to the President on January 19, 2018. (See Aluminum in November 2017.) The recommendations included several options; including a tariff of at least 7.7% on aluminum imports from all countries, a quota on aluminum imports from all countries equal to a maximum of 86.7% of their exports to the United States in 2017, or a tariff of 23.6% on all aluminum products from China, Hong Kong, Russia, Venezuela, and Vietnam. On April 27, 2017, the President signed a memorandum instructing the Secretary of Commerce to conduct an investigation under the authority of Section 232 of the Trade Expansion Act of 1962. (See Aluminum in March 2017.) The President has 90 days after receiving the report to decide on any action based on the findings of the investigation. A summary of the report will be published in the Federal Register after the President announces what actions will be taken (U.S. Department of Commerce, 2018a).

On February 27, 2018, the U. S. Department of Commerce issued the final determinations in the antidumping and countervailing duty investigations of imports of aluminum foil from China. The investigation concluded that foil produced in China was sold in the United States at 48.64% to 106.9% less than fair value and that the Government of China provided subsidies of 17.14% to 80.97% to foil producers. If the U.S. International Trade Commission makes affirmative final injury determinations, antidumping and countervailing duty orders will

be issued by the U. S. Department of Commerce (U.S. Department of Commerce, 2018b).

Matalco Inc. announced it reached an agreement to acquire Alexin LLC, which owned a secondary smelter in Bluffton, IN. Alexin's capacity was 100,000 metric tons per year of extrusion billet and rolling slab. The acquisition was pending regulatory approval (Matalco Inc., 2018).

References Cited

- London Metal Exchange Ltd., 2017a, Aluminium stocks: London, United Kingdom, London Metal Exchange Ltd., November 30, 3 p.
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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		
2016	841	2,010	1,570	3,580	4,230	1,180	5,410	9,840	1,400
2016, December	63	166	119	285	381	95	476	824	1,400
2017: ^P									
January	62	164	136 ^r	300 ^r	458	100	558	920 ^r	1,310
February	56	170	131 ^r	300 ^r	394	90	484	841 ^r	1,290
March	63	180	145	325 ^r	476	111	587	975 ^r	1,310
April	60	171	135 ^r	306 ^r	434	113	547	913 ^r	1,320
May	64	176	137 ^r	313 ^r	411	133	544	921 ^r	1,340
June	61	170	130	301 ^r	409	119	528	890 ^r	1,330
July	63	170	134 ^r	304 ^r	411	130	541	908 ^r	1,360
August	63	174	138 ^r	312 ^r	379	121	500	875 ^r	1,390
September	60	170	134 ^r	304 ^r	338	102	440	804 ^r	1,420
October	63	172	132 ^r	304 ^r	358	122	480	846	1,430
November	61	163	124 ^r	287	358	116	474	822	1,420
December	64	163	119	282	400	118	518	864	NA
January–December	741	2,040	1,600	3,640	4,830	1,380	6,200	10,600	NA

^PPreliminary. ^rRevised. 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 both 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
	2016	2,140	1,690	1,980	1,800	101	93	5	5	4,220
2016, December	168	135	155	142	8	8	(2)	(2)	332	285
2017: ^p										
January	177 ^r	139	167	152	8	8	(2)	(2)	353 ^r	300 ^r
February	171 ^r	136	171	156	8	8	(2)	(2)	351 ^r	300 ^r
March	180 ^r	141 ^r	193	176	8	8	(2)	(2)	383 ^r	325 ^r
April	176 ^r	138 ^r	175	160	8	8	(2)	(2)	360 ^r	306 ^r
May	180 ^r	142 ^r	179	163	8	8	(2)	(2)	367 ^r	313 ^r
June	169 ^r	132 ^r	176	161	8	8	(2)	(2)	353 ^r	301 ^r
July	176 ^r	139 ^r	172	157	8	8	(2)	(2)	357 ^r	304 ^r
August	178 ^r	141 ^r	178	163	8	8	(2)	(2)	365 ^r	312 ^r
September	173 ^r	137	173	158	8	8	(2)	(2)	355 ^r	304 ^r
October	181 ^r	142 ^r	168	154	8	8	(2)	(2)	357 ^r	304 ^r
November	176 ^r	139 ^r	154	140	8	8	(2)	(2)	339 ^r	287
December	174	137	150	137	8	8	(2)	(2)	332	282
January–December	2,110	1,660	2,060	1,880	101	93	4	4	4,270	3,640

^pPreliminary. ^rRevised.

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 2017¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	145,000	174,000	115,000	137,000
Independent mill fabricators	138,000	150,000	127,000	137,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	296	355	296	355
Total	290,000	332,000	248,000	282,000

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 2017¹

(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	16,200	67,800	67,800	16,200	825,000	824,000
Can stock clippings	6,750	17,300	16,800	7,250	229,000	228,000
Other wrought sheet/clippings	11,100	42,400	42,000	11,500	544,000	543,000
Casting	3,540	5,820	5,640	3,730	68,400	68,100
Borings and turnings	4,450	10,100	10,300	4,220	117,000	116,000
Dross and skimmings	7,140	30,100	30,100	7,140	374,000	374,000
Total new scrap	49,200	173,000	173,000	50,000	2,160,000	2,150,000
Old scrap:						
Used castings	8,240	24,200	23,800	8,640	297,000	296,000
Used extrusion	8,250	12,400	12,400	8,250	164,000	164,000
Used cans (shredded, loose, baled)	5,960	51,400	51,300	6,080	684,000	683,000
Other wrought products	15,400	26,000	22,300	19,200	326,000	331,000
Fragmentized shredder (auto shredder)	2,740	7,680	7,860	2,550	108,000	108,000
Total old scrap	40,600	122,000	118,000	44,700	1,580,000	1,580,000
Sweated pig	183	151	151	183	1,810	1,810
Total all classes	90,000	295,000	290,000	94,900	3,740,000	3,740,000

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 2017^{1,2}

(Metric tons)

	December			January–December ³		
	Stocks, opening ³	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,000	2,500	2,500	2,000	30,400	31,100
380 and variations	7,180	15,200	15,200	7,180	182,000	182,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,460	4,180	4,180	1,460	50,200	50,200
No. 319 and variations	3,200	3,530	3,530	3,200	42,400	42,400
F-132 alloy and variations	663	347	347	663	4,160	4,160
Al-Zn alloys	243	120	120	243	1,440	1,440
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	4,150	10,500	10,100	4,570	130,000	135,000
Wrought alloys, extrusion billets	39,800	65,500	65,500	39,800	786,000	786,000
Total all alloys	59,000	102,000	102,000	59,400	1,230,000	1,230,000
Less:						
Primary aluminum consumed	XX	18,100	XX	XX	220,000	XX
Primary silicon consumed	XX	2,140	XX	XX	25,700	XX
Other alloying ingredients consumed	XX	1,260	XX	XX	15,300	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot ⁵	XX	80,500	XX	XX	967,000	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
2016:		
December	86.475	78.483
January–December	80.428	72.746
2017:		
January	89.964	81.210
February	94.375	84.207
March	96.370	86.233
April	96.972	87.571
May	96.071	86.803
June	93.761	85.559
July	93.964	86.329
August	99.330	92.062
September	103.810	95.261
October	106.198	96.616
November	104.852	95.280
December	103.908	93.911
January–December	98.298	89.254

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)
2016:					
December	67.81	58.50	55.00	57.67	55.00
January–December	61.99	56.99	53.68	56.54	54.36
2017:					
January	70.30	59.92	56.00	58.35	56.65
February	72.37	62.47	58.00	59.68	58.89
March	73.35	65.91	60.96	61.96	60.52
April	71.55	66.00	61.75	62.75	61.15
May	68.27	64.50	60.05	61.05	60.36
June	67.23	63.14	58.77	59.77	59.68
July	67.05	62.00	57.85	59.00	59.00
August	70.98	62.91	57.30	58.35	59.00
September	73.12	65.00	58.40	58.95	58.90
October	74.09	65.00	58.00	58.77	58.00
November	72.88	64.08	57.65	59.00	56.60
December	69.95	62.55	56.50	57.95	54.70
January–December	70.93	63.62	58.44	59.63	58.62

Source: American Metal Market.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN DECEMBER 2017¹

(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	35,000	249,000	--	--	--	--	35,000	249,000
Australia	13,600	99,100	21	389	532	1,830	14,200	101,000
Austria	--	7	3,150	31,600	49	2,100	3,200	33,700
Bahrain	8,260	112,000	3,510	59,500	--	--	11,800	171,000
Belgium	117	1,080	1,100	8,820	--	--	1,220	9,900
Brazil	--	20,400	1,590	22,300	19	4,680	1,610	47,400
Canada	176,000	2,450,000	18,300	250,000	29,000	379,000	223,000	3,070,000
Chile	--	--	--	(2)	511	6,310	511	6,310
China	324	4,430	40,100	460,000	22	664	40,500	465,000
Colombia	--	--	882	8,260	163	3,160	1,050	11,400
Costa Rica	--	--	--	(2)	249	3,530	249	3,530
El Salvador	--	--	--	285	154	3,170	154	3,460
France	2,660	11,400	3,180	28,800	278	2,370	6,110	42,600
Germany	79	2,070	3,460	41,400	387	3,570	3,930	47,000
Greece	--	(2)	1,160	19,400	--	305	1,160	19,700
Guatemala	--	--	4	20	864	12,900	868	12,900
Honduras	--	--	7	7	140	3,440	147	3,450
Hong Kong	--	30,600	721	6,590	19	1,960	740	39,200
India	27,000	121,000	5,140	47,900	--	54	32,100	169,000
Indonesia	--	200	6,520	78,400	--	--	6,520	78,600
Italy	1,240	6,130	960	9,680	--	253	2,200	16,100
Japan	--	82	2,570	27,800	16	691	2,590	28,500
Korea, Republic of	1	1,800	985	15,000	574	13,000	1,560	29,700
Malaysia	18	1,380	780	7,150	--	(2)	798	8,530
Mexico	1,720	17,500	3,100	47,400	11,100	170,000	16,000	235,000
Netherlands	42	1,430	263	4,400	5	82	310	5,920
New Zealand	1,460	4,520	1	3	--	85	1,460	4,610
Norway	142	860	289	794	--	--	431	1,650
Oman	982	14,500	3,370	25,200	--	--	4,350	39,800
Qatar	7,940	118,000	--	3	--	--	7,940	118,000
Romania	--	--	256	3,440	--	121	256	3,570
Russia	69,600	691,000	1,240	17,700	--	630	70,800	710,000
Saudi Arabia	2,560	51,900	3,510	16,100	396	11,000	6,470	79,100
South Africa	9,050	102,000	3,940	48,800	--	36	13,000	151,000
Spain	3,550	4,180	459	3,590	547	10,200	4,560	17,900
Sweden	--	16	540	6,500	--	(2)	540	6,520
Switzerland	--	--	317	2,780	--	--	317	2,780
Taiwan	--	310	366	4,100	363	2,820	729	7,230
Thailand	69	784	782	8,050	314	3,360	1,170	12,200
Turkey	--	--	985	10,700	721	5,670	1,710	16,400
United Arab Emirates	36,700	629,000	109	404	190	3,340	37,000	633,000
United Kingdom	22	849	283	6,360	589	3,730	894	10,900
Venezuela	1,450	79,000	43	3,030	1,280	1,730	2,770	83,700
Vietnam	45	484	2,490	25,200	4	47	2,540	25,700
Other	252	1,890	1,640	17,500	2,200	28,900	4,090	48,300
Total	400,000	4,830,000	118,000	1,370,000	50,700	685,000	569,000	6,890,000

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9
U.S. EXPORTS OF ALUMINUM IN DECEMBER 2017¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	December	January– December	December	January– December	December	January– December	December	January– December
Australia	21	663	208	1,960	1	26	230	2,650
Belgium	--	68	61	2,600	133	2,170	194	4,840
Bolivia	--	--	151	2,380	--	--	151	2,380
Brazil	18	4,410	335	3,470	56	293	409	8,170
Canada	9,030	102,000	27,300	409,000	7,210	106,000	43,600	616,000
China	45	689	2,500	28,200	75,200	820,000	77,700	849,000
Colombia	5	104	99	1,200	--	--	104	1,300
Dominican Republic	83	1,320	104	1,590	--	25	187	2,940
France	502	6,430	561	10,900	201	3,290	1,260	20,600
Germany	63	1,950	420	12,800	1,060	11,500	1,540	26,200
Guatemala	--	1,220	433	7,530	8	55	441	8,800
Hong Kong	--	30	86	2,050	3,620	50,600	3,700	52,700
India	9	151	77	1,260	7,520	78,900	7,600	80,300
Indonesia	--	--	32	482	5,760	37,200	5,790	37,700
Ireland	(2)	27	58	418	--	469	58	914
Israel	2	28	1,040	9,320	--	--	1,040	9,350
Italy	--	73	125	1,620	--	1	125	1,700
Jamaica	12	24	1	195	--	327	13	546
Japan	239	2,000	1,240	14,600	1,890	16,600	3,360	33,200
Korea, Republic of	39	529	3,900	35,000	20,700	181,000	24,700	217,000
Malaysia	2	43	732	6,380	6,570	52,500	7,310	59,000
Mexico	7,220	142,000	31,300	430,000	11,900	153,000	50,500	726,000
Netherlands	2	64	49	866	496	2,930	547	3,860
New Zealand	--	10	69	755	--	10	69	775
Norway	--	1	1	88	--	--	1	89
Pakistan	--	1	5	26	372	6,720	377	6,740
Panama	--	2	2	1,840	--	--	2	1,840
Philippines	--	4	37	327	302	2,180	339	2,510
Poland	8	97	60	863	51	71	119	1,030
Romania	3	102	36	519	--	--	39	621
Russia	1	2	10	80	522	3,370	533	3,450
Saudi Arabia	--	57	114	1,220	--	--	114	1,270
Singapore	12	336	210	4,790	--	60	222	5,180
Spain	3	70	74	1,550	81	587	158	2,210
Taiwan	987	5,100	619	5,940	3,280	30,200	4,880	41,200
Thailand	--	9	423	5,240	634	3,180	1,060	8,430
Turkey	1	222	328	4,310	--	49	329	4,580
United Arab Emirates	321	3,880	11	755	60	1,280	392	5,920
United Kingdom	236	863	734	12,700	113	830	1,080	14,400
Vietnam	--	40	2	135	56	587	58	762
Other	58	466	478	5,970	549	2,260	1,090	8,700
Total	18,900	275,000	74,000	1,030,000	148,000	1,570,000	241,000	2,870,000

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.