

Mineral Industry Surveys

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ALUMINUM IN DECEMBER 2019

Domestic primary aluminum production in December was 91,000 metric tons (t). The average daily production in December was 2,950 t, essentially unchanged from that in November 2019, 3% less than that in December 2018, but 43% more than that in December 2017. Total primary aluminum production in 2019 was 1.09 million metric tons (Mt), 23% more than that in 2018 (fig. 1, table 1).

Total aluminum recovered from scrap in December was 262,000 t, 3% less than the amount in November, 10% less than the amount in December 2018, and 7% less than that in December 2017. Of this, 144,000 t of aluminum was recovered from new scrap and 118,000 t was recovered from old scrap. Total secondary aluminum production in 2019 was 3.37 Mt, 9% less than that in 2018 (fig. 1, table 1).

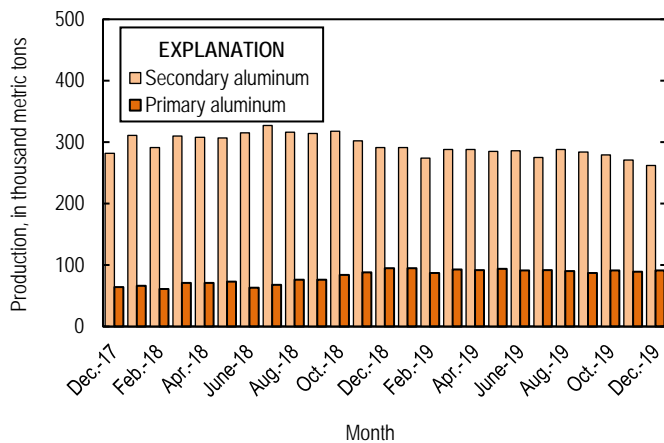


Figure 1. Monthly domestic primary and secondary aluminum production from December 2017 through December 2019.

Prices and Stocks

The December average U.S. spot market price of primary aluminum ingot was \$0.945 per pound, slightly less than that in November. The average cash price in December of primary aluminum ingot on the London Metal Exchange (LME) was \$0.803 per pound, essentially unchanged from that in November (fig. 2, table 6).

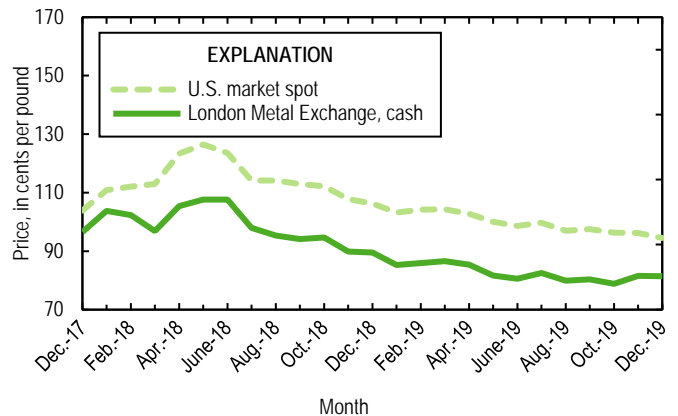


Figure 2. Average monthly prices for primary aluminum from December 2017 through December 2019. Source: Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses in the United States decreased to 4,750 t at the end of December from 5,025 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 40,620 t at the end of December from 56,080 t at the end of November (London Metal Exchange Ltd., 2019a, b).

U.S. Trade

Total imports for consumption of aluminum in 2019 (table 8) were 9% less than those in 2018 and 17% less than those in 2017. Imports of crude metal and alloys, semifabricated products, and scrap decreased by 8%, 5%, and 20%, respectively, in 2019 compared with those in 2018. Canada continued to be the leading source of imported aluminum materials, supplying 46% of all aluminum imports during 2019, followed by the United Arab Emirates (8%), Australia (5%), India (4%), and Russia (4%). Canada accounted for 55% of crude metal, 14% of semifabricated products, and 63% of scrap

imports. China accounted for 9% of semifabricated product imports. Mexico was the source of 25% of scrap imports.

Total exports of aluminum (table 9) decreased by 4% during 2019 compared with those of the previous year but were slightly more than those in 2017. In 2019, exports of crude metal and alloys and semifabricated aluminum products decreased by 20% and 16%, respectively, but exports of scrap increased by 6% compared with those in 2018. The leading destinations for total aluminum products in 2019, in descending order of quantity, were Mexico (22%), Canada (18%), and China (12%). Mexico and Canada were the leading destination for exports of crude metal and alloys, receiving 46% and 42%, respectively. Mexico and Canada were also the leading destination for exports of semifabricated aluminum products, receiving 42% and 39%, respectively. The leading destinations for scrap were China, Malaysia, the Republic of Korea, India, and Mexico, receiving 17%, 16%, 15%, 15%, and 10%, respectively.

Update

On January 24, 2020, the President of the United States imposed a 10% tariff on imported products made with aluminum under authority of Section 232 of the Trade Expansion Act of 1962. In March 2018, a 10% tariff was imposed on imports of aluminum under the same authority. Concerns had been raised that domestic manufactures were having to pay more for aluminum but that competitors were able to import finished products without having to pay a tariff on the aluminum contained in finished products (Executive Office of the President, 2020; Roh, 2020).

Century Aluminum Co. continued with the restart of a potline at its smelter in Hawesville, KY. The potline was shut down in March 2019 for maintenance work and would be producing at full capacity in early 2020. (See Aluminum in September 2019.) The capacity of the potline was 50,000 metric tons per year (t/yr) and the smelter's total capacity was 252,000 t/yr (Century Aluminum Co., 2020).

In China, supplies of anodes and coal tar pitch used to make anodes used in smelters have been reported to be constrained. Coal deliveries to some powerplants have also slowed. Several industry sources in China report that downstream demand for aluminum has decreased and that aluminum stocks are high. Bauxite deliveries to ports have not been interrupted as of the end of February, but shipments from ports to inland alumina refineries have been delayed because of limited rail and truck

service. Some alumina refineries have decreased production owing to shortages of bauxite and caustic soda used in refining alumina. Alumina prices in China and other parts of the world have increased on supply shortages and concerns about future availability. Health officials in China imposed travel and work restrictions in some parts of the country most affected by the COVID-19 virus to contain it and in other regions higher rates of absenteeism have been attributed to concerns about the virus (Goh, 2020; Latham, 2020; Lazzaro, 2020; Liu, 2020; Tana, 2020).

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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		
2018	891	2,140	1,570	3,710	4,180	1,410	5,590	10,200	1,570
2018, December	95	169	122	291	309	122	431	817	1,570
2019: ^p									
January	95	172	119	291	299	136	435	821	1,640
February	87	153	121	274	286	118	404	765	1,600
March	93	159	129	288	315	145	460	841	1,590
April	92	161	128	288	315	143	458	839	1,650
May	94	158	127	285	288	135	423	802	1,630
June	91	159	127	286	316	131	447	824	1,630
July	92	145	129	275	421	117	538	905	1,640
August	90	158	130	288	334	115	449	827	1,650
September	87	159	125	284	292	105	397	769	1,640
October	91	151	128	279	319	100	419	788	1,630
November	89	145	126	271	302	96	398	758	1,600
December	91	144	118	262	317	96	413	767	1,600
January–December	1,093	1,870	1,510	3,370	3,800	1,440	5,240	9,710	1,600

^pPreliminary.

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
	2018	2,210	1,700	2,090	1,910	101	93	4	4	4,410
2018, December	186	141	155	142	8	8	(2)	(2)	350	291
2019: ^P										
January	178	135	161	148	8	8	(2)	(2)	348	291
February	182	138	140	128	8	8	(2)	(2)	330	274
March	188	141	152	140	8	8	(2)	(2)	349	288
April	184	139	154	141	8	8	(2)	(2)	346	288
May	185	139	150	137	8	8	(2)	(2)	344	285
June	184	139	152	139	8	8	(2)	(2)	345	286
July	182	137	142	130	8	8	(2)	(2)	333	275
August	182	135	158	145	8	8	(2)	(2)	348	288
September	182	138	151	139	8	8	(2)	(2)	342	284
October	185	140	143	130	8	8	(2)	(2)	336	279
November	185	139	136	124	8	8	(2)	(2)	329	271
December	179	136	129	118	8	8	(2)	(2)	317	262
January–December	2,200	1,660	1,770	1,620	101	93	4	4	4,070	3,370

^PPreliminary.

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 2019¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	149,000	179,000	113,000	136,000
Independent mill fabricators	117,000	129,000	107,000	118,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	273	328	273	328
Total	273,000	317,000	227,000	262,000

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 IN DECEMBER 2019¹

(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	18,500	46,100	46,000	18,600	624,000	623,000
Can stock clippings	5,920	22,600	22,400	6,180	285,000	285,000
Other wrought sheet/clippings	86,700	37,700	35,300	89,100	505,000	443,000
Casting	4,150	5,820	5,820	4,150	75,900	75,900
Borings and turnings	5,580	11,900	11,900	5,580	150,000	150,000
Dross and skimmings	16,400	37,300	37,300	16,400	476,000	476,000
Total new scrap	137,000	161,000	159,000	140,000	2,120,000	2,050,000
Old scrap:						
Used castings	9,410	26,000	26,000	9,410	320,000	320,000
Used extrusion	9,190	15,900	15,900	9,190	186,000	186,000
Used cans (shredded, loose, baled)	11,200	40,200	40,100	11,200	486,000	486,000
Other wrought products	15,200	26,800	23,800	18,200	357,000	357,000
Fragmentized shredder (auto shredder)	3,860	9,230	9,080	4,010	114,000	114,000
Total old scrap	48,800	118,000	115,000	52,000	1,460,000	1,460,000
Total all classes	186,000	279,000	273,000	192,000	3,580,000	3,510,000

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 2019^{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	1,790	1,790	2,630	21,500	21,500
380 and variations	6,930	15,400	15,400	6,930	185,000	185,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,310	2,550	2,550	1,310	30,600	30,600
No. 319 and variations	3,480	3,370	3,370	3,480	40,400	40,400
F-132 alloy and variations	418	386	386	418	4,630	4,630
Al-Zn alloys	W	W	W	W	W	W
Al-Si alloys (0.6% to 2.0% Cu)	214	142	142	214	1,710	1,710
Al-Cu alloys (1.5% Si, max.)	W	W	W	W	W	W
Other ⁴	6,930	10,100	10,100	6,930	121,000	121,000
Wrought alloys, extrusion billets	10,800	55,000	55,000	10,800	660,000	660,000
Total all alloys	32,700	88,800	88,800	32,700	1,070,000	1,070,000
Less:						
Primary aluminum consumed	XX	16,200	XX	XX	193,000	XX
Primary silicon consumed	XX	1,860	XX	XX	23,100	XX
Other alloying ingredients consumed	XX	846	XX	XX	11,000	XX
Net metallic recovery from aluminum						
scrap consumed in production of						
secondary aluminum ingot ⁵	XX	69,900	XX	XX	838,000	XX

W Withheld to avoid disclosing company proprietary data; included in "Other." 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-Zn, Al-Cu, 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
2018:		
December	106.294	87.588
January–December	114.737	95.703
2019:		
January	103.268	83.711
February	104.202	84.333
March	104.286	84.907
April	102.825	83.849
May	100.083	80.510
June	98.625	79.547
July	99.707	81.310
August	96.929	78.950
September	97.507	79.340
October	96.283	77.949
November	96.236	80.375
December	94.488	80.288
January–December	99.537	81.256

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)
2018:					
December	58.12	53.25	45.50	45.00	40.62
January–December	73.00	61.90	55.12	55.42	52.03
2019:					
January	54.98	50.55	44.38	43.45	39.38
February	57.58	50.21	45.32	44.32	39.50
March	59.60	51.00	46.00	45.00	39.38
April	59.48	51.38	46.40	45.48	39.05
May	57.00	49.05	44.77	43.07	37.91
June	54.12	47.15	42.40	40.90	34.70
July	54.00	46.34	41.00	39.00	32.18
August	53.18	45.64	39.18	38.43	31.39
September	51.50	42.10	36.98	35.90	29.35
October	51.59	40.11	34.91	34.37	26.67
November	53.24	39.00	33.74	33.24	26.50
December	53.12	39.00	35.48	34.98	27.12
January–December	54.95	45.96	40.88	39.85	33.59

Source: American Metal Market.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN DECEMBER 2019¹

(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
Argentina	--	171,000	--	21	--	--	--	171,000
Australia	11,700	268,000	58	971	--	389	11,800	269,000
Austria	--	--	389	21,800	--	--	389	21,800
Bahrain	10,100	131,000	4,680	66,900	--	--	14,800	198,000
Belgium	9	288	257	11,500	--	--	266	11,800
Brazil	--	1,640	2,200	32,500	--	174	2,200	34,300
Canada	229,000	2,100,000	17,200	182,000	28,300	350,000	274,000	2,630,000
Chile	--	--	--	5	177	3,030	177	3,040
China	44	14,600	7,080	115,000	40	220	7,170	130,000
Colombia	--	--	370	4,260	55	1,320	425	5,590
Costa Rica	--	--	--	--	187	2,970	187	2,970
El Salvador	--	--	46	617	128	1,640	174	2,260
France	352	5,540	1,560	18,800	220	838	2,130	25,200
Germany	193	516	6,200	97,000	66	1,830	6,460	99,400
Greece	--	--	1,420	33,100	9	42	1,430	33,100
Guatemala	--	--	--	19	201	9,440	201	9,460
Honduras	--	--	291	1,990	105	884	396	2,870
Hong Kong	--	--	30	5,290	--	--	30	5,290
India	7,380	183,000	2,930	50,400	--	26	10,300	233,000
Indonesia	--	--	1,220	67,600	--	1	1,220	67,700
Italy	69	2,820	1,580	30,100	36	71	1,680	33,000
Japan	--	78	2,760	43,800	328	9,640	3,090	53,500
Korea, Republic of	792	17,700	3,410	40,800	921	10,700	5,130	69,300
Malaysia	100	4,930	726	6,530	--	39	826	11,500
Mexico	19	801	2,000	33,300	11,700	140,000	13,700	174,000
Netherlands	128	822	418	5,130	184	618	730	6,570
New Zealand	1,250	13,600	--	2	--	--	1,250	13,600
Norway	--	11,700	129	4,640	--	--	129	16,300
Oman	692	6,770	4,100	80,100	--	--	4,800	86,900
Qatar	6,710	157,000	--	62	--	--	6,710	157,000
Romania	--	--	594	11,800	--	35	594	11,800
Russia	13,100	205,000	236	12,500	--	--	13,300	218,000
Saudi Arabia	844	20,000	10,300	59,800	--	--	11,100	79,800
South Africa	321	9,810	4,600	48,500	--	--	4,920	58,300
Spain	73	3,840	1,040	19,500	--	729	1,110	24,100
Sweden	--	--	434	8,360	--	--	434	8,360
Switzerland	3	3	178	6,000	--	43	181	6,050
Taiwan	28	207	2,650	55,800	76	926	2,760	56,900
Thailand	35	777	4,150	18,000	39	406	4,230	19,200
Turkey	--	--	4,990	54,200	--	--	4,990	54,200
United Arab Emirates	33,900	473,000	79	2,760	--	134	34,000	476,000
United Kingdom	4	1,630	343	8,090	194	3,680	541	13,400
Venezuela	--	47	5	289	101	1,240	106	1,570
Vietnam	--	100	2,110	20,000	--	1,120	2,110	21,200
Other	88	2,220	3,060	60,500	658	12,700	3,800	75,400
Total	317,000	3,800,000	95,800	1,340,000	43,800	554,000	456,000	5,700,000

-- 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 2019¹

(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	40	693	142	2,210	--	3	182	2,910
Belgium	--	7	37	1,810	775	8,330	812	10,100
Brazil	--	1,110	249	5,920	1,630	23,700	1,880	30,800
Canada	6,920	98,200	22,800	335,000	6,370	92,800	36,100	526,000
China	248	1,810	1,630	27,300	2,960	316,000	4,840	345,000
Colombia	--	4	68	643	--	--	68	647
Dominican Republic	1	680	30	686	--	79	31	1,450
France	614	7,200	786	8,040	132	2,240	1,530	17,500
Germany	290	2,510	430	6,520	1,490	8,840	2,210	17,900
Guatemala	1	1	3	4,490	--	--	4	4,490
Hong Kong	--	31	50	1,550	2,280	92,100	2,330	93,700
India	101	326	166	2,080	30,800	271,000	31,000	273,000
Indonesia	199	508	3	82	567	90,100	769	90,700
Ireland	--	15	13	503	--	--	13	518
Israel	--	4	1,600	12,400	--	21	1,600	12,400
Italy	4	83	93	1,840	1,140	11,600	1,230	13,500
Jamaica	--	10	--	174	--	--	--	184
Japan	150	1,920	1,610	18,100	1,610	16,000	3,370	36,000
Korea, Republic of	5	598	1,890	27,500	22,900	273,000	24,800	301,000
Malaysia	2,300	2,890	269	3,400	32,500	290,000	35,100	296,000
Mexico	6,140	108,000	21,600	364,000	13,100	186,000	40,900	657,000
Netherlands	71	126	55	461	522	1,850	648	2,430
New Zealand	--	3	24	432	--	--	24	435
Norway	--	1	--	87	--	--	--	88
Pakistan	--	--	1	55	777	13,200	778	13,200
Panama	--	20	3	265	--	--	3	285
Philippines	2	10	38	372	953	11,600	993	12,000
Poland	--	65	19	1,060	--	239	19	1,370
Romania	19	110	370	1,760	--	--	389	1,870
Russia	--	6	2	154	1,530	8,060	1,530	8,220
Saudi Arabia	--	7	63	785	--	2,910	63	3,700
Singapore	11	504	136	1,910	1,590	6,600	1,740	9,020
Spain	63	1,290	84	1,370	678	5,180	825	7,840
Taiwan	149	2,380	414	5,480	4,070	61,300	4,630	69,200
Thailand	111	459	164	1,650	6,010	35,600	6,280	37,700
Turkey	--	164	297	5,000	629	1,570	926	6,730
United Arab Emirates	--	166	31	316	105	5,950	136	6,430
United Kingdom	63	861	542	9,050	265	2,530	870	12,400
Vietnam	--	3	29	187	1,940	9,490	1,970	9,680
Other	46	743	324	4,800	2,190	16,900	2,560	22,500
Total	17,500	233,000	56,100	859,000	140,000	1,860,000	213,000	2,960,000

-- Zero.

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

Source: U.S. Census Bureau.