

# Mineral Industry Surveys

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## ALUMINUM IN MARCH 2020

Domestic primary aluminum production in March 2020 was 95,000 metric tons (t). The average daily production in March was 3,050 t, essentially unchanged from that in February, slightly more than that in March 2019, and 34% more than that in March 2018 (fig. 1, table 1).

Total aluminum recovered from scrap in March was 278,000 t, unchanged from the amount in February, 4% less than the amount in March 2019, and 10% less than that in March 2018. Of this, 154,000 t of aluminum was recovered from new scrap and 124,000 t was recovered from old scrap (fig. 1, table 1).

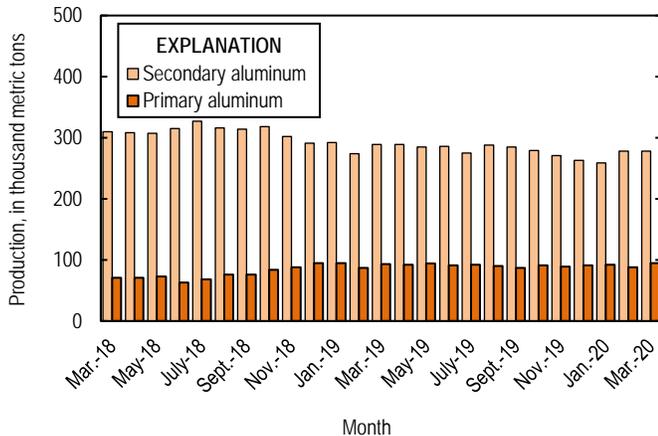


Figure 1. Monthly domestic primary and secondary aluminum production from March 2018 through March 2020.

**Prices and Stocks**

The March average U.S. spot market price of primary aluminum ingot was \$0.866 per pound, 4% less than that in February, 17% less than that in March 2019, and 23% less than that in March 2018. The average cash price in March of primary aluminum ingot on the London Metal Exchange (LME) was \$0.731 per pound, 4% less than that in February, 14% less than that in March 2019, and 22% less than that in March 2018 (fig. 2, table 6).

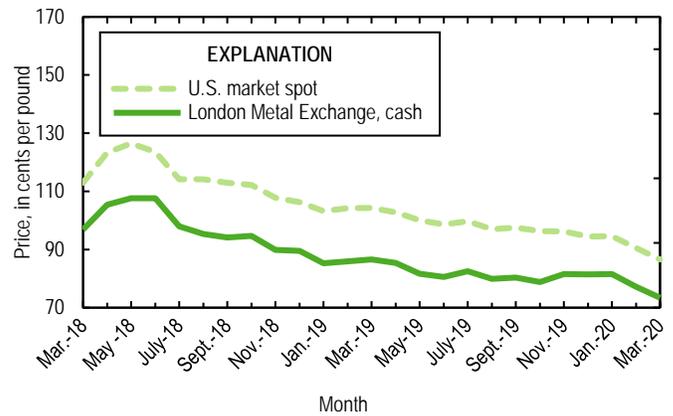


Figure 2. Average monthly prices for primary aluminum from March 2018 through March 2020. Source: Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses in the United States decreased to 3,200 t at the end of March from 3,725 t at the end of February. Inventories of secondary aluminum (North American Secondary Aluminum Alloy Contract) in LME-approved warehouses in the United States decreased to 35,040 t at the end of March from 35,260 t at the end of February (London Metal Exchange Ltd., 2020a, b).

**U. S. Trade**

Total imports for consumption of aluminum in the first quarter of 2020 (table 8) decreased by 42% compared with those in the same period in 2019. Imports of crude metal and alloys, semifabricated products, and scrap decreased by 17%, 81%, and 80%, respectively. Canada continued to be the leading source of imported aluminum materials, supplying 67% of all aluminum imports during the first 3 months of 2020, followed by the United Arab Emirates (5%), Australia (5%), Argentina (4%), and Russia (4%). Canada accounted for 74% of crude metal and 57% of scrap imports. Other leading sources of crude metal imports were the United Arab Emirates (6%),

Argentina and Australia (5% each), and Russia (4%). Saudi Arabia and China accounted for 28% and 25%, respectively, of semifabricated product imports. Mexico was the source of 26% of scrap imports.

Total exports of aluminum (table 9) decreased slightly during the first 3 months of 2020 compared with those of the same period in the previous year. Exports of crude metal and semifabricated products decreased by 9% each compared with those in the same period of 2019. Scrap exports in the first quarter of 2020 increased slightly compared with those in the first quarter of 2019. The leading destinations for total aluminum exports during the first 3 months of 2020, in descending order of quantity, were Mexico (21%), Canada (19%), and India (13%). Canada received 43% of crude metal, 44% of semifabricated products, and 5% of scrap exports in the first quarter of 2020. Mexico received 48% of crude metal, 37% of semifabricated products, and 11% of scrap exports in the first quarter of 2020. India was the leading destination for scrap exports in the first quarter of 2020, receiving 21% of the total scrap exported.

### Update

The U.S. International Trade Commission (USITC) postponed its preliminary determinations on countervailing duty investigations of common alloy aluminum sheet imported from Bahrain, Brazil, India, and Turkey until August 7. The USITC continued an antidumping investigation of 18 countries that were alleged to have sold common alloy aluminum sheet in the United States below market prices. The countries named in the antidumping petition were Bahrain, Brazil, Croatia, Egypt, Germany, Greece, India, Indonesia, Italy, the Republic of Korea, Oman, Romania, Serbia, Slovenia, South Africa, Spain, Taiwan, and Turkey. The investigations were requested in March by The Aluminum Association Inc. which alleged that producers benefited from government subsidy programs. (See Aluminum in January 2020.) The preliminary determinations for the antidumping investigations were expected by August 17 (Lazzaro, 2020c).

Arconic Inc. restarted production at its extrusion facility in Massena, NY, on April 20 and production from its rolling mill in Alcoa, TN, resumed at the end of April. Arconic stopped production at both locations on April 6. Novelis Corp. restarted production at the Lewisport, KY, rolling mill after being shut down on March 30 for about three weeks. Hydro ASA continued to produce at reduced levels at its secondary smelters in Commerce, TX, and Henderson, KY. Each smelter had 90,000 metric tons per year (t/yr) of capacity to produce extrusion billet. Hydro's secondary smelters in Azuqueca, Spain; Deeside, United Kingdom; Luce, France; and Rackwitz, Germany were restarted in mid-April after being temporarily

shut down in February or March (Blamey, 2020; Hydro ASA, 2020b; Lazzaro, 2020a, b).

On March 26, Hydro restarted production from 115,000 t/yr of capacity at the 460,000-t/yr Albras smelter in Barcarena, Brazil. A fire in an electrical transformer on March 6 was cited for the shutdown of the potline at the smelter. (See Aluminum in February 2020.) The smelter was a joint venture among Hydro (51%) and Nippon Amazon Aluminium Co. Ltd. (49%) (Hydro ASA, 2020a).

In April, production started from the South Aluminum Complex smelter in Lamerd, Iran, located in the southern province of Fars. The first phase of the smelter capacity was about 44,000 t/yr. Total capacity of the smelter would be 300,000 t/yr when completed. In the northern part of Iran, the Jajram smelter was being ramped up and was producing at a rate of 40,000 t/yr. The Jajram 130,000-t/yr smelter started production in the first quarter of 2020 and used alumina from an adjacent 260,000-t/yr alumina refinery which was supplied by an adjacent bauxite mine. A schedule for the rampup of both smelters was not available (Eqbali, 2020).

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TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY<sup>1</sup>

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>2</sup>			Imports for consumption			Total new supply <sup>3</sup>	Stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2019 <sup>p</sup>	1,090	1,870	1,510	3,380	3,800	1,440	5,240	9,710	1,600
2019:									
March	93	160	129	289	315	145	460	842	1,590
April	92	161	127	289	315	143	458	839	1,650
May	94	158	127	285	288	135	423	803	1,630
June	91	159	127	286	316	131	447	824	1,630
July	92	146	129	275	421	117	538	905	1,640
August	90	158	130	288	334	115	449	828	1,650
September	87	159	125	285	292	105	397	769	1,640
October	91	151	128	279	319	100	419	789	1,630
November	89	146	126	271	302	96	398	759	1,600
December	91	144	118	263	317	96	413	767	1,600
January–March	274	487	369	855	894	399	1,290	2,420	1,600
2020:									
January	92	147 <sup>r</sup>	123	269 <sup>r</sup>	347	28	375	736 <sup>r</sup>	1,650
February	88	157	122	278	208	22	230	596	1,580
March	95	154	124	278	246	23	269	642	NA
January–March	275	457	369	825	801	73	874	1,970	NA

<sup>p</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

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

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

<sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>4</sup>Inventory 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 SCRAP<sup>1</sup>

(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
	2019 <sup>P</sup>	2,198	1,660	1,767	1,620	101	93	4	4	4,070
2019:										
March	189	141	152	140	8	8	(2)	(2)	350	289
April	184	140	154	141	8	8	(2)	(2)	346	289
May	185	140	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	136	158	145	8	8	(2)	(2)	348	288
September	182	138	151	139	8	8	(2)	(2)	342	285
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	263
January–March	551	415	452	416	25	23	1	1	1,029	855
2020:										
January	180	137	135	124	8	8	(2)	(2)	325	269
February	180	136	145	134	8	8	(2)	(2)	334	278
March	182	137	147	135	6	5	(2)	(2)	336	278
January–March	543	411	428	393	23	21	1	1	995	825

<sup>P</sup>Preliminary.

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

<sup>2</sup>Less than ½ unit.

TABLE 3  
 CONSUMPTION OF AND RECOVERY FROM PURCHASED  
 NEW AND OLD ALUMINUM SCRAP IN MARCH 2020<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	152,000	182,000	114,000	137,000
Independent mill fabricators	133,000	147,000	122,000	135,000
Foundries	4,950	5,940	4,530	5,440
Other consumers	273	328	273	328
Total	290,000	336,000	242,000	278,000

<sup>1</sup>Data 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 MARCH 2020<sup>1</sup>

(Metric tons)

	March				January–March <sup>2</sup>	
	Stocks, opening <sup>2</sup>	Net receipts <sup>3</sup>	Melted or consumed	Stocks, closing	Net receipts <sup>3</sup>	Melted or consumed
New scrap:						
Extrusion	20,200	53,600	53,600	20,200	155,000	156,000
Can stock clippings	5,290	25,200	25,000	5,460	74,500	74,500
Other wrought sheet/clippings	9,700	32,300	34,700	7,380	97,800	104,000
Casting	3,370	5,200	5,200	3,370	16,900	16,900
Borings and turnings	3,550	11,500	11,400	3,570	34,500	34,700
Dross and skimmings	10,600	39,700	39,700	10,600	116,000	116,000
Total new scrap	52,700	167,000	170,000	50,600	495,000	502,000
Old scrap:						
Used castings	6,830	25,100	25,100	6,830	78,300	78,300
Used extrusion	7,320	16,000	16,000	7,320	47,900	47,900
Used cans (shredded, loose, baled)	9,170	41,100	41,200	9,090	116,000	116,000
Other wrought products	10,600	25,300	29,400	6,470	79,200	88,000
Fragmentized shredder (auto shredder)	4,170	9,320	9,300	4,190	27,000	27,300
Total old scrap	38,100	117,000	121,000	33,900	348,000	357,000
Total all classes	90,800	284,000	290,000	84,500	843,000	860,000

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

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED  
STATES IN MARCH 2020<sup>1, 2</sup>

(Metric tons)

	March				January–March <sup>3</sup>	
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
<b>Die-cast alloys:</b>						
13% Si, 360, etc. (0.6% Cu, max.)	3,220	1,670	1,670	3,220	5,010	5,010
380 and variations	7,700	15,400	15,400	7,700	46,100	46,100
<b>Sand and permanent mold:</b>						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,450	2,620	2,620	1,450	7,860	7,860
No. 319 and variations	4,730	4,190	4,190	4,730	12,600	12,600
F-132 alloy and variations	182	249	249	182	747	747
Al-Zn alloys	467	81	81	467	244	244
Al-Si alloys (0.6% to 2.0% Cu)	219	133	133	219	399	399
Al-Cu alloys (1.5% Si, max.)	673	161	161	673	483	483
Other <sup>4</sup>	6,970	9,620	9,620	6,970	28,900	28,900
Wrought alloys, extrusion billets	10,400	54,600	54,600	10,400	164,000	164,000
Total all alloys	36,000	88,700	88,700	36,000	266,000	266,000
<b>Less:</b>						
Primary aluminum consumed	XX	15,600	XX	XX	46,700	XX
Primary silicon consumed	XX	1,830	XX	XX	5,500	XX
Other alloying ingredients consumed	XX	795	XX	XX	2,390	XX
<b>Net metallic recovery from aluminum scrap consumed in production of secondary aluminum ingot<sup>5</sup></b>						
	XX	70,500	XX	XX	212,000	XX

XX Not applicable.

<sup>1</sup>Excludes integrated aluminum companies.

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

<sup>3</sup>May include revisions to previously published data.

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

<sup>5</sup>No 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
2019:		
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
2020:		
January	94.545	80.351
February	90.540	76.451
March	86.591	73.070
January–March	90.559	76.624

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)
2019:					
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
2020:					
January	53.40	40.10	37.38	37.07	29.62
February	51.66	42.16	39.29	39.24	33.82
March	50.02	41.80	38.95	39.95	35.18
January–March	51.69	41.35	38.54	38.75	32.87

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN MARCH 2020<sup>1</sup>

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc		Scrap		Total	
	March	January– March	March	January– March	March	January– March	March	January– March
Argentina	1,520	36,200	--	--	--	--	1,520	36,200
Australia	10,200	39,700	--	--	--	--	10,200	39,700
Austria	--	--	267	758	--	--	267	758
Bahrain	299	323	--	--	--	--	299	323
Belgium	42	47	59	144	--	--	101	191
Brazil	--	--	243	1,060	12	12	255	1,070
Canada	203,000	547,000	314	850	5,490	17,000	209,000	565,000
Chile	--	--	--	--	81	231	81	231
China	--	236	5,730	18,500	--	--	5,730	18,800
Colombia	--	--	--	--	138	263	138	263
Costa Rica	--	--	--	--	42	65	42	65
El Salvador	--	--	--	--	194	555	194	555
France	341	954	16	38	--	--	357	992
Germany	64	200	1,750	6,110	45	141	1,860	6,450
Greece	--	--	176	420	--	16	176	436
Guatemala	--	--	--	--	334	1,040	334	1,040
Honduras	--	--	--	206	--	23	--	229
Hong Kong	--	--	--	32	--	--	--	32
India	451	16,300	157	491	--	--	608	16,800
Indonesia	--	--	52	171	--	--	52	171
Italy	--	281	213	911	--	281	213	1,470
Japan	--	--	502	1,190	--	--	502	1,190
Korea, Republic of	602	990	2,480	4,620	602	827	3,680	6,430
Malaysia	--	203	33	141	--	--	33	344
Mexico	--	--	730	2,240	3,670	7,730	4,400	9,970
Netherlands	211	425	15	65	--	--	226	490
New Zealand	789	5,820	--	--	--	--	789	5,820
Norway	77	155	--	--	--	--	77	155
Oman	--	99	--	6	--	--	--	105
Qatar	1,760	8,800	--	--	--	--	1,760	8,800
Romania	--	--	95	238	--	--	95	238
Russia	5,430	31,000	26	31	--	--	5,460	31,100
Saudi Arabia	--	2,140	5,910	20,800	--	--	5,910	23,000
South Africa	514	3,840	--	386	--	--	514	4,220
Spain	52	278	31	76	--	--	83	354
Sweden	--	--	361	1,230	--	--	361	1,230
Switzerland	--	--	34	68	--	--	34	68
Taiwan	--	1	80	233	--	--	80	234
Thailand	--	7	3,180	10,300	--	--	3,180	10,300
Turkey	--	--	271	549	--	--	271	549
United Arab Emirates	20,400	45,400	100	100	--	--	20,500	45,500
United Kingdom	22	52	385	1,340	354	838	761	2,230
Venezuela	--	25	--	--	--	--	--	25
Vietnam	--	--	29	146	--	--	29	146
Other	47	96	101	267	213	728	361	1,090
Total	246,000	740,000	23,300	73,800	11,200	29,700	280,000	844,000

-- Zero.

<sup>1</sup>Data 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 MARCH 2020<sup>1</sup>

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	March	January– March	March	January– March	March	January– March	March	January– March
Australia	2	84	181	590	--	--	183	674
Belgium	--	16	25	96	617	1,440	642	1,560
Brazil	7	8	265	1,230	--	1,120	272	2,360
Canada	7,960	24,200	28,300	90,700	7,290	21,500	43,600	136,000
China	64	669	2,290	5,780	18,000	40,000	20,400	46,400
Colombia	6	6	132	210	69	109	207	325
Dominican Republic	1	1	39	75	--	59	40	135
France	69	221	789	2,440	128	485	986	3,140
Germany	82	89	615	1,620	479	1,220	1,180	2,930
Guatemala	--	2	7	23	--	--	7	25
Hong Kong	1	3	24	163	5,190	15,400	5,210	15,600
India	9	75	157	374	34,100	95,900	34,300	96,300
Indonesia	--	8	2	25	8,500	23,600	8,500	23,700
Ireland	--	--	88	218	--	--	88	218
Israel	--	4	1,780	4,040	--	--	1,780	4,040
Italy	19	37	85	463	657	1,680	761	2,180
Jamaica	38	49	9	14	--	--	47	63
Japan	249	447	2,000	4,600	1,890	4,460	4,140	9,500
Korea, Republic of	4	462	2,140	6,370	27,500	73,500	29,600	80,300
Malaysia	41	1,590	198	542	24,400	73,400	24,700	75,500
Mexico	11,500	26,600	26,900	77,100	15,200	49,300	53,600	153,000
Netherlands	--	11	50	122	196	534	246	667
New Zealand	--	--	20	97	--	--	20	97
Norway	1	1	4	4	--	--	5	5
Pakistan	--	39	--	5	1,210	2,820	1,210	2,860
Panama	--	--	4	23	--	--	4	23
Philippines	4	237	18	86	696	2,200	718	2,530
Poland	1	1	29	65	15	37	45	103
Romania	12	43	647	1,170	--	--	659	1,220
Russia	--	--	5	18	3,290	6,610	3,290	6,630
Saudi Arabia	--	2	91	219	125	182	216	403
Singapore	23	51	240	633	38	2,380	301	3,060
Spain	--	--	41	143	689	1,510	730	1,650
Taiwan	210	636	593	1,380	2,950	9,980	3,750	12,000
Thailand	--	1	105	318	5,880	16,200	5,980	16,500
Turkey	24	24	538	1,590	274	1,120	836	2,740
United Arab Emirates	--	4	43	113	889	2,160	932	2,280
United Kingdom	5	176	754	2,260	403	996	1,160	3,440
Vietnam	--	47	274	501	537	2,230	811	2,780
Other	36	63	423	1,280	2,090	5,640	2,540	6,980
Total	20,300	55,900	69,900	207,000	163,000	458,000	254,000	720,000

-- Zero.

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

Source: U.S. Census Bureau.