

Mineral Industry Surveys

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ALUMINUM IN FEBRUARY 2023

Domestic primary aluminum production in February 2023 was 59,000 metric tons (t). The average daily production in February 2023 was 1,900 t, 10% less than that in January 2023, 29% less than that in February 2022, and 23% less than that in February 2021 (fig. 1, table 1).

Total aluminum recovered from scrap in February 2023 was 274,000 t, slightly less than that in January 2023, 4% less than that in February 2022, and 6% more than that in February 2021. Of this, 148,000 t of aluminum was recovered from new scrap, and 126,000 t was recovered from old scrap (fig. 1, table 1).

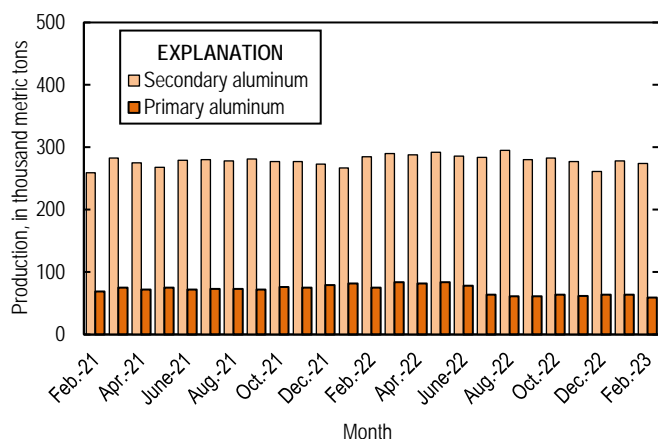


Figure 1. Monthly domestic primary and secondary aluminum production from February 2021 through February 2023.

Prices and Stocks

The February 2023 average U.S. spot market price of primary aluminum ingot was \$1.39 per pound, essentially unchanged from that in January 2023, 24% less than that in February 2022, and 27% more than that in February 2021. The average cash price in February 2023 of primary aluminum ingot on the London Metal Exchange (LME) was \$1.10 per pound, 3% less than that in January 2023, 26% less than that in February 2022, and 16% more than that in February 2021 (fig. 2, table 6).

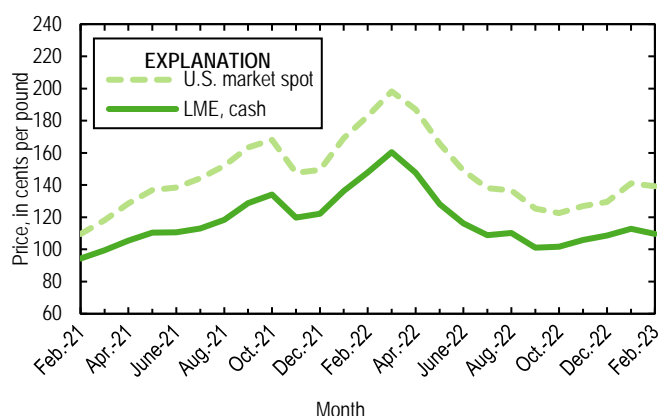


Figure 2. Average monthly prices for primary aluminum from February 2021 through February 2023. Source: S&P Global Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses, including off-warrant inventories, in the United States were 3,624 t at the end of February 2023, 39% less than that at the end of January 2023. Inventories of secondary aluminum (North American Secondary Aluminum Alloy Contract) in LME-approved warehouses, including off-warrant inventories, in the United States were 1,551 t at the end of February 2023, 25% less than that at the end of January 2023 (London Metal Exchange Ltd., 2023a-d).

Updates

On March 15, Alcoa Corp. announced that it would reduce production at its Portland Aluminum smelter in Victoria, Australia. Production at the 358,000-metric-ton-per-year primary aluminum smelter will be reduced by 75%. Operational issues related to the production of rodded anodes, a necessary component of the smelting process, was cited as the reason for the reduction. Portland Aluminum was operated by a three-party joint venture of which a majority share was held by Alcoa of Australia Ltd (Alcoa Corp., 2023b).

On March 16, Alcoa Corp. announced the permanent closure of its 279,000-metric-ton-per-year (t/yr) Intalco primary aluminum smelter located in Ferndale, Washington. The

smelter was fully curtailed in July 2020, owing to high energy and production costs. Rights to develop and purchase the 650-hectare (1,600-acre) site were acquired by Canadian energy infrastructure company, AltaGas Ltd (Alcoa Corp., 2023a; Lerner, 2023).

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TABLE 1
COMPONENTS OF ALUMINUM SUPPLY¹

(Thousand metric tons)

Period	Primary production	Secondary recovery ⁴			Imports for consumption			Total new supply ²	Stocks, end of period ³
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2022 ^p	861	1,920	1,470	3,390	4,150	1,460	5,610	9,870 ^r	2,050
2022:									
February	75	165	120	285 ^r	262	107	369	729 ^r	1,900
March	84	164	126 ^r	290	341	129	470	844	1,910
April	82	161	127 ^r	288 ^r	331	125	456	826 ^r	1,910
May	84	171	131 ^r	301	404	144	548	933	1,880
June	78	160	126	286	460	124	583	947 ^r	1,910
July	64	156	128 ^r	284	345	129	474	822	1,940
August	61	168	126	295 ^r	360	130	490	846 ^r	1,980
September	61	158	122 ^r	280	317	128	445	786	2,000
October	64	159	123	283 ^r	322	125	447	794	2,060
November	62	157	120	277	279	115	394	733 ^r	2,050
December	64	146	115	261	388	96	484	809	2,050
January–February	157	319 ^r	228 ^r	547 ^r	605	219	824	1,530	2,050
2023:									
January	64	162	116	278	307	99	406	748	1,960
February	59	148	126	274	238	73	311	644	NA
January–February	123	310	242	552	545	172	717	1,390	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.

²Primary production, secondary recovery, and imports for consumption.

³Inventory levels reflect total for U.S. and Canadian producers; data from the Aluminum Association Inc.

⁴Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

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
2022 ^p	2,400 ^r	1,790	1,650	1,510	97	95	4	4	4,150	3,390
2022:										
February	193 ^r	145	143 ^r	132	8	8	(2)	(2)	345	285 ^r
March	200	150 ^r	145	132 ^r	8	8	(2)	(2)	353	290
April	199 ^r	149	143	130	8	8	(2)	(2)	350	288 ^r
May	211	160 ^r	146	134	8	8	(2)	(2)	366	301
June	202 ^r	151	140	127	8	8	(2)	(2)	350	286
July	198	148	141	128	8	8	(2)	(2)	347	284
August	201	152 ^r	148	135	8	8	(2)	(2)	358	295 ^r
September	201 ^r	149 ^r	137	125	8	8	(2)	(2)	346	281
October	204	152	136	124	8	8	(2)	(2)	349	284 ^r
November	202	151	130	118	8	8	(2)	(2)	341 ^r	277
December	197 ^r	146 ^r	118	107	8	8	(2)	(2)	323	261
January–February	382 ^r	286 ^r	267	245	17	15	1	1	667 ^r	547 ^r
2023:										
January	202 ^r	152 ^r	130	119	8	8	(2)	(2)	340	278
February	191	143	136	123	8	8	(2)	(2)	336	274
January–February	393	295	266	242	16	16	1	1	676	552

^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 FEBRUARY 2023¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	159,000	191,000	119,000	143,000
Independent mill fabricators	122,000	136,000	110,000	123,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	273	328	273	328
Total	288,000	336,000	236,000	274,000

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 FEBRUARY 2023¹

(Metric tons)

	February				January–February	
	Stocks, opening ²	Net receipts ³	Melted or consumed	Stocks, closing	Net receipts ³	Melted or consumed
New scrap:						
Extrusion	62,000	37,500	37,600	61,900	84,500	84,600
Can stock clippings	10,600	29,200	29,200	10,600	62,000	62,000
Other wrought sheet/clippings	10,000	35,500	35,100	10,400	70,300	68,400
Casting	3,980	5,310	5,310	3,980	12,600	12,600
Borings and turnings	5,620	12,900	12,900	5,620	26,700	26,700
Dross and skimmings ⁴	18,500	44,100	44,100	18,500	88,700	88,700
Total new scrap	111,000	164,000	164,000	111,000	345,000	343,000
Old scrap:						
Used castings	9,070	26,400	26,400	9,070	52,800	52,800
Used extrusion	8,210	11,300	11,300	8,210	22,600	22,600
Used cans (shredded, loose, baled)	9,540	48,800	48,800	9,540	95,400	95,400
Other wrought products	20,100	28,500	28,500	20,100	46,000	46,000
Fragmentized shredder (auto shredder)	5,150	9,140	9,140	5,150	22,200	22,200
Total old scrap	52,100	124,000	124,000	52,100	239,000	239,000
Total all classes	163,000	289,000	288,000	163,000	584,000	582,000

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.

⁴Gross volume of dross and skimmings. Recoverable aluminum content ranges from 15% to 50% of gross weight.

TABLE 5
ESTIMATED ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED
STATES IN FEBRUARY 2023^{1,2}

(Metric tons)

	February				January–February	
	Stocks, opening ³	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,830	2,740	2,740	2,830	5,490	5,490
380 and variations	7,900	18,200	18,200	7,900	36,400	36,400
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,940	2,800	2,800	1,940	5,600	5,600
No. 319 and variations	2,400	1,970	1,970	2,400	3,950	3,950
F-132 alloy and variations	89	215	215	89	431	431
Al-Zn alloys	339	71	71	339	142	142
Al-Si alloys (0.6% to 2.0% Cu)	230	178	178	230	357	357
Al-Cu alloys (1.5% Si, max.)	139	724	724	139	1,450	1,450
Other ⁴	6,240	7,900	7,900	6,240	15,800	15,800
Wrought alloys, extrusion billets	16,000	62,300	62,300	16,000	125,000	125,000
Total all alloys	38,100	97,100	97,100	38,100	152,000	152,000
Less:						
Primary aluminum consumed	XX	17,100	XX	XX	34,300	XX
Primary silicon consumed	XX	1,650	XX	XX	3,300	XX
Other alloying ingredients consumed	XX	838	XX	XX	1,680	XX
Net metallic recovery from aluminum scrap consumed in production of secondary aluminum ingot ⁵	XX	77,500	XX	XX	113,000	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-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
2022:		
February	182.873	147.883
March	198.185	160.448
April	187.079	147.693
May	165.795	128.182
June	149.085	116.235
July	137.994	108.911
August	136.691	110.264
September	125.275	101.129
October	122.548	101.737
November	126.830	105.909
December	129.488	108.612
January–December	152.572	122.767
2023:		
January	141.000	112.881
February	139.175	109.624
January–February	140.088	111.253

Source: S&P Global 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)
2022:					
February	111.63	81.75	78.50	76.13	74.00
March	129.30	86.10	86.20	83.70	79.20
April	122.38	87.50	89.50	85.50	80.75
May	106.25	81.00	76.75	77.63	73.13
June	93.70	74.70	69.60	70.60	66.60
July	76.88	68.50	63.75	65.25	59.38
August	77.50	67.13	61.88	62.63	56.88
September	72.80	65.60	63.30	63.20	52.40
October	73.00	65.75	61.25	61.00	48.50
November	72.38	66.00	62.00	61.75	48.00
December	79.30	66.80	64.50	64.40	48.80
January–December	92.88	74.05	70.83	70.33	63.28
2023:					
January	83.25	68.75	68.25	67.63	51.88
February	88.50	69.38	70.00	70.25	57.38
January–February	85.88	69.07	69.13	68.94	54.63

Source: Fastmarkets–AMM.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN FEBRUARY 2023¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	February	January– February	February	January– February	February	January– February	February	January– February
Argentina	12,900	12,900	--	17	--	--	12,900	12,900
Australia	12,100	19,500	9	10	--	--	12,200	19,500
Austria	--	--	2,190	4,400	13	26	2,200	4,420
Bahrain	4,290	8,870	397	1,040	--	--	4,690	9,910
Belgium	114	266	1,080	2,540	--	--	1,190	2,810
Brazil	--	--	1	59	150	150	151	209
Canada	160,000	390,000	16,600	34,600	31,400	63,100	208,000	488,000
Chile	--	--	--	--	162	264	162	264
China ²	103	118	10,800	32,800	15	32	11,000	33,000
Colombia	--	--	201	364	497	573	698	937
Costa Rica	--	--	18	18	291	469	309	487
France	168	494	215	1,230	7	14	390	1,740
Germany	125	216	2,200	4,510	425	845	2,750	5,570
Greece	--	--	2,620	4,640	40	40	2,660	4,680
Guatemala	--	--	--	--	853	1,130	853	1,130
Honduras	--	--	187	274	260	356	447	630
India	3,660	8,670	1,020	2,500	--	--	4,680	11,200
Indonesia	--	--	595	1,640	--	--	595	1,640
Italy	80	447	842	1,680	--	--	922	2,130
Japan	(3)	(3)	2,470	4,840	--	12	2,470	4,850
Korea, Republic of	199	2,020	2,690	7,080	(3)	(3)	2,890	9,100
Malaysia	--	975	283	838	--	--	283	1,810
Mexico	792	1,790	4,210	9,450	18,100	33,700	23,100	45,000
Netherlands	75	202	70	282	146	217	291	701
New Zealand	99	1,880	--	--	--	--	99	1,880
Norway	547	1,030	294	494	--	--	841	1,530
Oman	--	--	5,300	12,100	--	--	5,300	12,100
Qatar	13,900	21,700	(3)	(3)	--	--	13,900	21,700
Romania	--	--	4	8	75	75	79	83
Russia	--	5,940	1	9	--	--	1	5,950
Saudi Arabia	86	1,340	575	1,320	--	--	661	2,650
South Africa	726	746	5,970	12,900	--	--	6,700	13,700
Spain	415	1,610	423	1,230	--	--	838	2,840
Sweden	1,500	1,500	764	1,640	--	--	2,260	3,140
Switzerland	--	--	647	916	--	--	647	916
Taiwan	131	192	403	785	--	(3)	534	977
Thailand	--	35	2,540	10,800	33	85	2,580	10,900
Turkey	355	355	2,150	5,680	--	--	2,500	6,040
United Arab Emirates	25,500	61,900	135	261	--	--	25,700	62,200
United Kingdom	28	69	188	611	--	23	216	703
Vietnam	--	--	1,910	3,440	--	--	1,910	3,440
Other	139	139	2,870	5,310	958	2,180	3,960	7,640
Total	238,000	545,000	72,900	172,000	53,400	103,000	365,000	820,000

-- Zero.

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

²Includes Hong Kong.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9
U.S. EXPORTS OF ALUMINUM IN FEBRUARY 2023¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	February	January– February	February	January– February	February	January– February	February	January– February
Australia	3	3	119	212	--	--	122	215
Belgium	--	--	351	781	462	1,140	813	1,920
Brazil	(2)	(2)	445	989	696	2,030	1,140	3,010
Canada	4,870	10,800	27,500	55,000	9,500	21,000	41,900	86,700
China ³	29	55	1,010	2,150	14,200	30,200	15,200	32,400
Colombia	--	--	6	25	65	84	71	109
Dominican Republic	7	7	19	38	(2)	22	26	67
France	155	666	908	1,710	142	228	1,210	2,610
Germany	224	356	671	1,190	494	1,060	1,390	2,600
Guatemala	--	--	1	5	--	--	1	5
India	100	169	264	719	31,000	60,300	31,400	61,200
Indonesia	--	--	23	24	1,340	4,520	1,360	4,540
Ireland	4	6	144	223	69	69	217	298
Israel	(2)	(2)	376	883	--	--	376	883
Italy	1	21	155	340	1,570	2,190	1,730	2,550
Jamaica	2	2	6	14	--	--	8	16
Japan	111	183	843	1,730	3,270	6,260	4,230	8,170
Korea, Republic of	57	122	1,640	3,850	24,200	48,500	25,900	52,500
Malaysia	10,200	17,800	686	1,190	31,000	61,800	42,000	80,700
Mexico	13,400	27,400	22,400	46,000	12,700	26,100	48,500	99,500
Netherlands	6	500	73	97	1,350	2,270	1,430	2,870
New Zealand	--	19	163	200	--	--	163	219
Norway	--	(2)	1	3	156	340	157	343
Pakistan	--	--	42	43	794	1,810	836	1,850
Panama	--	--	2	3	--	(2)	2	3
Philippines	5	5	33	50	433	781	471	836
Poland	5	5	211	256	--	--	216	261
Romania	(2)	(2)	82	211	--	--	82	211
Saudi Arabia	--	--	10	44	--	--	10	44
Singapore	(2)	12	146	589	20	711	166	1,310
Spain	(2)	(2)	128	379	848	1,160	976	1,540
Taiwan	62	235	334	614	4,060	8,260	4,450	9,110
Thailand	19	19	363	494	18,100	31,800	18,500	32,300
Turkey	--	--	367	888	182	325	549	1,210
United Arab Emirates	--	--	32	286	339	722	371	1,010
United Kingdom	1	4	996	1,830	18	110	1,020	1,950
Vietnam	--	--	97	100	1,140	3,840	1,240	3,940
Other	19	94	374	876	897	1,480	1,290	2,450
Total	29,300	58,400	61,000	124,000	159,000	319,000	249,000	502,000

-- Zero.

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

²Less than ½ unit.

³Includes Hong Kong.

Source: U.S. Census Bureau.