

Mineral Industry Surveys

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ALUMINUM IN MAY 2022

Domestic primary aluminum production in May 2022 was 84,000 metric tons (t). The average daily production in May 2022 was 2,700 t, essentially unchanged from that in April 2022, 12% more than that in May 2021, and 13% less than that in May 2020 (fig. 1, table 1).

Total aluminum recovered from scrap in May 2022 was 292,000 t, essentially unchanged* from that in April 2022, 9% more than the amount in May 2021, and 28% more than that in May 2020. Of this, 162,000 t of aluminum was recovered from new scrap, and 130,000 t was recovered from old scrap (fig. 1, table 1).

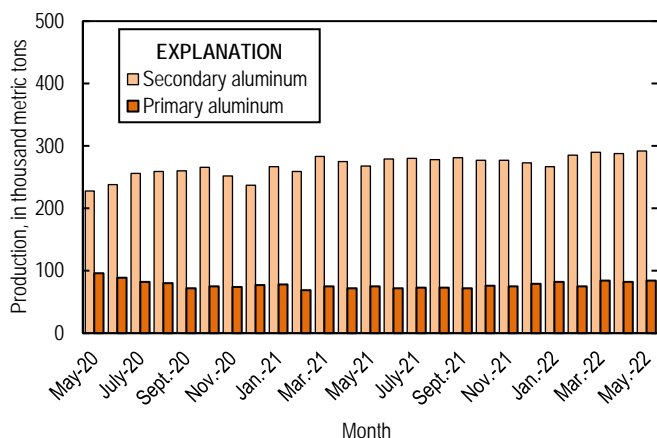


Figure 1. Monthly domestic primary and secondary aluminum production from May 2020 through May 2022.

Prices and Stocks

The May 2022 average U.S. spot market price of primary aluminum ingot was \$1.66 per pound, 11% less than that in April 2022, 21% more than that in May 2021, and 121% more than that in May 2020. The average cash price in May 2022 of primary aluminum ingot on the London Metal Exchange (LME) was \$1.28 per pound, 13% less than that in April 2022, 16% more than that in May 2021, and 94% more than that in May 2020 (fig. 2, table 6).

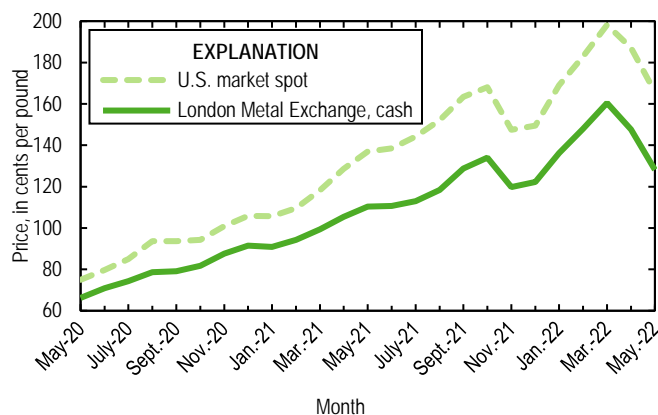


Figure 2. Average monthly prices for primary aluminum from May 2020 through May 2022. Source: S&P Global Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses, including off-warrant inventories, in the United States decreased to 28,958 t at the end of May 2022 from 36,689 t at the end of April 2022. Inventories of secondary aluminum (North American Secondary Aluminum Alloy Contract) in LME-approved warehouses, including off-warrant inventories, in the United States decreased to 6,376* t at the end of May 2022 from 7,537 t at the end of April 2022 (London Metal Exchange Ltd., 2022a, b, c, d).

Updates

On July 13, Rio Tinto Group announced that it would expand its Alma smelter in Lac-Saint-Jean, Quebec, Canada, to include new casting pits and furnaces. The expansion will increase capacity of aluminum billet at the smelter by 202,000 metric tons per year (t/yr). Construction is expected to begin in May 2023 and conclude by 2025 (Rio Tinto Group, 2022).

On July 19, Steel Dynamics, Inc. announced that it would build and operate a recycled aluminum flat rolled mill in the southeastern United States. Two supporting recycled aluminum slab centers will also be built, one each in the southwestern United States and in northcentral Mexico. Approximately half of the recycled aluminum slab required by the mill will be

generated at the satellite facilities while the remainder will be produced at the mill. The project is expected to have a production capacity of 650,000 t/yr of finished products and will require approximately 900,000 t/yr of aluminum slab supply. Commercial production at the mill is planned for the first quarter of 2025. The recycled aluminum slab centers in Mexico and the United States are expected to begin operation in 2024 and 2025 respectively (Steel Dynamics, Inc., 2022).

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- London Metal Exchange Ltd., 2022d, Off-warrant stock reporting—May 2022: London, United Kingdom, London Metal Exchange Ltd., July 10, 1 p. (Accessed July 27, 2022, via <https://www.lme.com/en/Market->

[data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting](https://www.lme.com/en/Market-data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting).)

- Rio Tinto Group, 2022, Rio Tinto expands low-carbon billet production in Canada: London, United Kingdom, Rio Tinto Group press release, July 13. (Accessed July 27, 2022, at <https://www.riotinto.com/news/releases/2022/Rio-Tinto-Expands-Low-carbon-Billet-Production-in-Canada>.)
- Steel Dynamics, Inc., 2022, Steel Dynamics announces investment in new state-of-the-art low-carbon aluminum flat rolled mill, aligned with its core steelmaking and recycling platforms: Fort Wayne, IN, Steel Dynamics, Inc. press release, July 19. (Accessed July 27, 2022, at <https://ir.steeldynamics.com/steel-dynamics-announces-investment-in-new-state-of-the-art-low-carbon-aluminum-flat-rolled-mill-aligned-with-its-core-steelmaking-and-recycling-platforms/>.)

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*Correction posted on [August 25, 2022].

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		
2021 ^p	889	1,780	1,520	3,300	3,630	1,290	4,920	9,110	1,860
2021:									
May	75	145	123	268	313	114	427	771	1,680
June	72	148	131	279	294	113	407	758	1,680
July	73	148	131	280	298	105	403	756	1,730
August	73	149	129	278	319	126	445	796	1,710
September	72	152	129	281	285	106	391	744	1,710
October	76	149	127	277	339	107	446	799	1,780
November	75	151	126	277	338	119	457	809	1,820
December	79	146	127	273	316	109	425	777	1,860
January–May	368 ^r	737 ^r	616 ^r	1,350 ^r	1,440	509	1,950	3,670 ^r	1,670 ^r
2022:									
January	82	152	115	267	343	112	455	804	1,880
February	75	159	126	285	262	107	369	729	1,900
March	84	159	132	290	341	129	470	844	1,910
April	82	155	132	288	331	125	456	826	1,920
May	84	162	130	292	404	144	548	924	NA
January–May	407	787	635	1,420	1,680	617	2,300	3,200	NA

^pPreliminary. ^rRevised. 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
2021 ^P	2,320	1,750	1,590	1,450	101	93	4	4	4,020	3,300
2021:										
May	192	145	126	115	8	8	(2)	(2)	327	268
June	194	147	137	124	8	8	(2)	(2)	340	279
July	192	145	139	127	8	8	(2)	(2)	340	280
August	196	147	136	124	8	8	(2)	(2)	341	278
September	194	146	139	127	8	8	(2)	(2)	341	281
October	195	146	134	122	8	8	(2)	(2)	338	277
November	196	147	133	122	8	8	(2)	(2)	338	277
December	194	146	130	119	8	8	(2)	(2)	333	273
January–May	962 ^r	723 ^r	645 ^r	590 ^r	42	39	2	2	1,650 ^r	1,350 ^r
2022:										
January	195	146	123	113	8	8	(2)	(2)	327	267
February	193	145	144	132	8	8	(2)	(2)	346	285
March	200	149	145	133	8	8	(2)	(2)	354	290
April	199	149	143	130	8	8	(2)	(2)	351	288
May	201	150	146	134	8	8	(2)	(2)	356	292
January–May	989	739	701	641	42	39	2	2	1,730	1,420

^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 MAY 2022¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	167,000	201,000	125,000	150,000
Independent mill fabricators	132,000	146,000	121,000	134,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	273	328	273	328
Total	307,000	356,000	253,000	292,000

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 MAY 2022¹

(Metric tons)

	May			January–May ²		
	Stocks, opening ²	Net receipts ³	Melted or consumed	Stocks, closing	Net receipts ³	Melted or consumed
New scrap:						
Extrusion	24,700	49,600	49,700	24,700	214,000	214,000
Can stock clippings	10,500	27,900	27,900	10,500	147,000	147,000
Other wrought sheet/clippings	8,370	39,800	37,600	10,500	185,000	183,000
Casting	5,920	8,630	8,630	5,920	41,700	41,700
Borings and turnings	5,270	13,400	13,400	5,270	67,400	67,400
Dross and skimmings ⁴	18,500	45,700	45,700	18,500	222,000	222,000
Total new scrap	73,300	185,000	183,000	75,300	877,000	876,000
Old scrap:						
Used castings	8,160	27,600	27,600	8,160	137,000	137,000
Used extrusion	8,870	22,300	22,300	8,870	89,000	89,000
Used cans (shredded, loose, baled)	7,850	43,200	43,200	7,850	207,000	207,000
Other wrought products	19,100	27,400	27,400	19,100	131,000	131,000
Fragmentized shredder (auto shredder)	6,410	12,200	12,200	6,410	60,700	60,700
Total old scrap	50,400	133,000	133,000	50,400	624,000	624,000
Total all classes	124,000	318,000	316,000	126,000	1,500,000	1,500,000

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
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED
STATES IN MAY 2022^{1,2}

(Metric tons)

	May				January–May	
	Stocks, opening ³	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,570	2,870	2,870	2,570	14,300	14,300
380 and variations	7,970	18,900	18,900	7,970	94,700	94,700
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,950	2,830	2,830	1,950	14,200	14,200
No. 319 and variations	2,230	2,000	2,000	2,230	10,000	10,000
F-132 alloy and variations	143	221	221	143	1,100	1,100
Al-Zn alloys	172	85	85	172	425	425
Al-Si alloys (0.6% to 2.0% Cu)	101	166	166	101	828	828
Al-Cu alloys (1.5% Si, max.)	405	564	564	405	2,820	2,820
Other ⁴	7,250	8,250	8,250	7,250	41,300	41,300
Wrought alloys, extrusion billets	11,800	63,100	63,100	11,800	282,000	281,000
Total all alloys	34,500	99,100	99,100	34,500	462,000	461,000
Less:						
Primary aluminum consumed	XX	20,600	XX	XX	86,900	XX
Primary silicon consumed	XX	1,700	XX	XX	8,420	XX
Other alloying ingredients consumed	XX	855	XX	XX	4,020	XX
Net metallic recovery from aluminum						
scrap consumed in production of secondary aluminum ingot ⁵	XX	76,000	XX	XX	363,000	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
2021:		
May	136.947	110.397
June	138.489	110.635
July	144.205	113.033
August	152.055	118.417
September	163.420	128.794
October	168.110	134.028
November	147.557	119.796
December	149.417	122.237
January–December	138.511	112.281
2022:		
January	169.020	136.197
February	182.873	147.883
March	198.185	160.448
April	187.079	147.693
May	165.795	128.182
January–May	180.590	144.081

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)
2021:					
May	74.13	74.50	70.50	71.00	69.50
June	70.88	73.75	68.75	68.75	68.00
July	71.40	73.90	67.20	67.40	67.60
August	77.10	73.50	66.10	66.70	66.40
September	NA	NA	NA	NA	NA
October	NA	NA	NA	NA	NA
November	NA	NA	NA	NA	NA
December	NA	NA	NA	NA	NA
January–December ¹	71.81	70.80	66.74	67.67	66.56
2022:					
January	NA	NA	NA	NA	NA
February	NA	NA	NA	NA	NA
March	NA	NA	NA	NA	NA
April	NA	NA	NA	NA	NA
May	NA	NA	NA	NA	NA

NA Not available.

¹September–December 2021 data are not available. January–August YTD average.

Source: Fastmarket-AMM.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN MAY 2022¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	May	January– May	May	January– May	May	January– May	May	January– May
Argentina	16,700	66,000	--	51	--	--	16,700	66,000
Australia	34,500	96,400	41	95	--	--	34,600	96,500
Austria	--	25	3,860	13,500	11	12	3,880	13,600
Bahrain	18,000	116,000	5,840	25,700	--	--	23,900	141,000
Belgium	59	189	1,150	4,270	--	--	1,210	4,460
Brazil	1,500	7,810	420	702	2,010	2,670	3,930	11,200
Canada	254,000	1,030,000	18,300	85,300	36,300	153,000	308,000	1,270,000
Chile	--	--	--	(2)	305	989	305	989
China ³	181	674	19,300	85,100	--	57	19,400	85,800
Colombia	--	--	371	1,500	625	2,680	996	4,180
Costa Rica	--	--	19	40	260	1,130	279	1,170
France	146	945	313	1,650	12	102	471	2,690
Germany	259	1,310	3,640	11,600	66	603	3,970	13,500
Greece	--	--	2,080	10,700	17	81	2,100	10,800
Guatemala	--	--	--	--	971	3,860	971	3,860
Honduras	--	--	264	1,220	357	820	621	2,040
India	10,100	42,200	2,360	8,120	--	--	12,400	50,300
Indonesia	879	879	1,410	6,740	--	--	2,290	7,610
Italy	396	396	1,090	5,560	--	--	1,490	5,960
Japan	--	1	8,330	24,100	(2)	30	8,330	24,200
Korea, Republic of	508	7,440	12,200	52,500	--	66	12,700	60,000
Malaysia	101	204	1,880	6,060	--	--	1,980	6,270
Mexico	1,010	6,740	7,650	35,300	19,800	91,300	28,500	133,000
Netherlands	57	414	427	1,140	45	444	529	2,000
Norway	282	870	1,210	4,980	--	--	1,490	5,850
Oman	--	624	10,800	47,800	--	--	10,800	48,500
Qatar	7,700	31,400	(2)	(2)	--	--	7,700	31,400
Romania	--	--	135	742	--	--	135	742
Russia	17,700	97,800	839	4,240	--	--	18,600	102,000
Saudi Arabia	--	--	4,350	14,100	--	--	4,350	14,100
South Africa	537	2,720	2,520	19,600	--	--	3,050	22,300
Spain	112	576	810	4,060	--	1	922	4,640
Sweden	--	--	1,130	3,380	--	--	1,130	3,380
Switzerland	62	64	448	1,360	--	--	510	1,420
Taiwan	14	68	356	1,740	--	3	370	1,810
Thailand	198	1,000	9,380	48,300	34	34	9,610	49,300
Turkey	828	6,030	4,780	23,100	--	(2)	5,610	29,200
United Arab Emirates	38,200	160,000	962	3,970	--	97	39,200	164,000
United Kingdom	2	21	1,380	8,740	18	65	1,400	8,830
Vietnam	--	5	4,110	17,500	4	22	4,110	17,600
Other	--	36	9,500	32,200	2,010	10,200	11,500	42,400
Total	404,000	1,680,000	144,000	617,000	62,900	269,000	610,000	2,570,000

-- 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.

TABLE 9
U.S. EXPORTS OF ALUMINUM IN MAY 2022¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	May	January–	May	January–	May	January–	May	January–
		May		May		May		May
Australia	78	610	75	119	--	--	153	729
Belgium	--	(2)	15	180	1,850	8,780	1,870	8,960
Brazil	2	24	60	471	92	559	154	1,050
Canada	6,330	29,400	23,600	109,000	9,490	50,000	39,400	189,000
China ³	394	1,240	512	1,670	21,100	91,700	22,000	94,700
Colombia	--	31	3	159	219	464	222	654
Dominican Republic	--	2	2	103	42	1,110	44	1,220
France	8	88	198	1,100	88	383	294	1,570
Germany	5	63	136	546	894	2,750	1,040	3,360
Guatemala	1	1	10	25	2	2	13	28
India	28	182	22	140	38,400	186,000	38,500	187,000
Indonesia	--	--	9	30	9,380	24,800	9,380	24,800
Ireland	7	20	(2)	57	--	--	7	77
Israel	--	(2)	117	424	--	(2)	117	424
Italy	(2)	3	51	227	927	4,960	978	5,190
Jamaica	--	20	1	6	--	--	1	26
Japan	131	382	363	860	3,220	13,500	3,710	14,700
Korea, Republic of	6	357	207	798	25,300	130,000	25,500	131,000
Malaysia	3,830	7,160	260	378	27,000	135,000	31,100	143,000
Mexico	14,800	58,500	13,100	60,600	21,100	90,800	49,000	210,000
Netherlands	6	24	15	134	551	2,560	572	2,720
New Zealand	--	--	29	120	--	--	29	120
Norway	--	7	1	17	--	--	1	24
Pakistan	--	--	(2)	22	1,030	7,560	1,030	7,590
Panama	2	2	5	13	--	--	7	15
Philippines	--	3	2	47	619	3,710	621	3,760
Poland	(2)	13	55	176	--	11	55	200
Romania	(2)	(2)	4	12	--	--	4	12
Russia	--	--	--	6	--	2,720	--	2,720
Saudi Arabia	--	(2)	2	12	--	--	2	12
Singapore	86	141	65	230	21	657	172	1,030
Spain	(2)	(2)	21	52	447	1,730	468	1,780
Taiwan	111	451	131	440	3,480	13,300	3,720	14,200
Thailand	9	10	25	116	9,450	44,200	9,490	44,300
Turkey	--	(2)	106	240	1,500	9,980	1,600	10,200
United Arab Emirates	2	43	1,110	3,180	816	2,290	1,930	5,510
United Kingdom	270	308	129	612	60	1,230	459	2,150
Vietnam	--	3	29	52	951	5,920	980	5,970
Other	56	453	202	920	1,380	7,600	1,640	8,970
Total	26,200	99,600	40,700	184,000	179,000	845,000	246,000	1,130,000

-- 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.