

Mineral Industry Surveys

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ALUMINUM IN SEPTEMBER 2022

Domestic primary aluminum production in September 2022 was 61,000 metric tons (t). The average daily production in September 2022 was 2,020 t, slightly more than that in August 2022, 16% less than that in September 2021, and 16% less than that in September 2020 (fig. 1, table 1).

Total aluminum recovered from scrap in September 2022 was 280,000 t, 5% less than that in August 2022, unchanged from that in September 2021, and 8% more than that in September 2020. Of this, 152,000 t of aluminum was recovered from new scrap, and 128,000 t was recovered from old scrap (fig. 1, table 1).

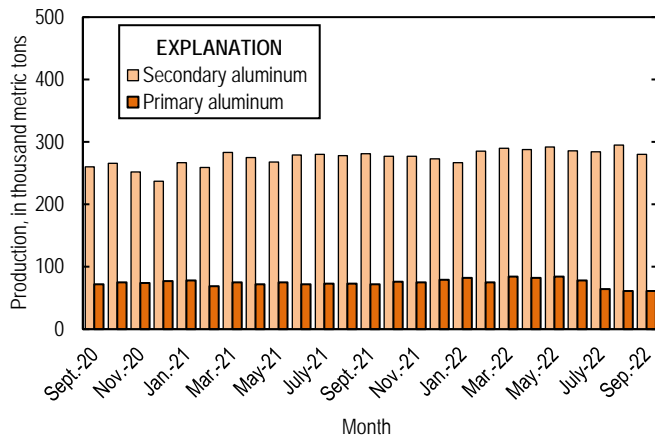


Figure 1. Monthly domestic primary and secondary aluminum production from September 2020 through September 2022.

Prices and Stocks

The September 2022 average U.S. spot market price of primary aluminum ingot was \$1.25 per pound, 8% less than that in August 2022, 23% less than that in September 2021, and 34% more than that in September 2020. The average cash price in September 2022 of primary aluminum ingot on the London Metal Exchange (LME) was \$1.01 per pound, 8% less than that in August 2022, 21% less than that in September 2021, and 28% more than that in September 2020 (fig. 2, table 6).

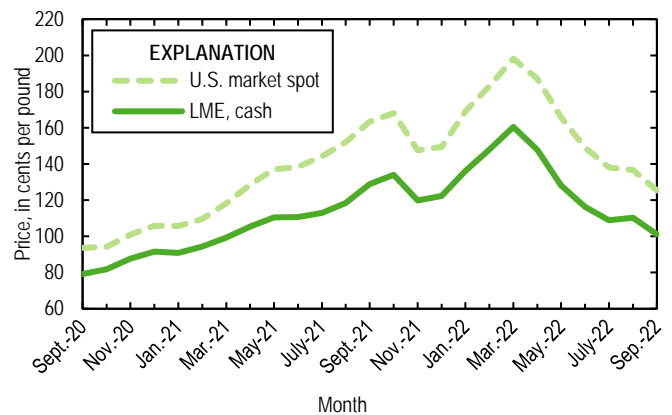


Figure 2. Average monthly prices for primary aluminum from September 2020 through September 2022. Source: S&P Global Platts Metals Week.

Inventories of primary aluminum in LME-approved warehouses, including off-warrant inventories, in the United States decreased to 15,587 t at the end of September 2022 from 17,225 t at the end of August 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 4,277 t at the end of September 2022 from 4,996 t at the end of August 2022 (London Metal Exchange Ltd., 2022a, b, c, d).

Updates

On November 2, Steel Dynamics, Inc., announced plans to build a \$1.9 billion aluminum flat rolling mill in Columbus, MS. The facility is expected to have a 650,000 metric tons per year (t/yr) production capacity. The facility will manufacture products for the automotive, alloy, and beverage industries. Completion is planned for mid-2025 (Steel Dynamics, Inc., 2022).

On November 15, the Arconic Corp. announced the sale of its Russian operations and assets to Promishlennii Investitsii LLC for \$230 million. Geopolitical uncertainty was cited as the reason for the sale (Arconic Corp., 2022).

Dutch aluminum producer Damco Aluminium Delfzijl Cooperatie U.A. (Aldel) declared bankruptcy on October 28. Aldel operated a 110,000-t/yr capacity smelter in Delfzijl, Netherlands. In September the facility was idled owing to high power prices (Argus Metals International, 2022).

References Cited

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London Metal Exchange Ltd., 2022c, Off-warrant stock reporting—August 2022: London, United Kingdom, London Metal Exchange Ltd., October 10, 1 p. (Accessed October 14, 2022, via <https://www.lme.com/en/Market-data/Reports-and-data/Warehouse-and-stocks-reports/Off-warrant-stock-reporting>.)

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Steel Dynamics, Inc., 2022, Steel Dynamics announces planned state-of-the-art aluminum flat rolled mill site selection: Fort Wayne, IN, Steel Dynamics, Inc. press release, November 2. (Accessed November 17, 2022, at <https://ir.steeldynamics.com/steel-dynamics-announces-planned-state-of-the-art-aluminum-flat-rolled-mill-site-selection/>.)

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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		
2021 ^P	889	1,780	1,520	3,300	3,630	1,290	4,920	9,110	1,860
2021:									
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–September	658	1,330 ^r	1,140 ^r	2,470 ^r	2,630	958	3,590	6,720 ^r	NA
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	1,910
May	84	162	130	292	404	144	548	923 ^r	1,880
June	78	154	132	286	460	124	583	948 ^r	1,910
July	64	150	134	284	345	129	474	822	1,936 ^r
August	61	162	132	295	360	130	491	847	1,965
September	61	152	128	280	317	128	444	786	NA
January–September	671	1,410	1,160	2,570	3,160	1,130	4,290	7,530	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
2021 ^P	2,320	1,750	1,590	1,450	101	93	4	4	4,020	3,300
2021:										
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–September	1,740 ^r	1,310 ^r	1,200	1,090	76	70	3	3	3,010 ^r	2,470 ^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
June	202	151	140	127	8	8	(2)	(2)	351	286
July	199	148	141	128	8	8	(2)	(2)	348	284
August	202	152	148	135	8	8	(2)	(2)	358	295
September	201	149	137	125	8	8	(2)	(2)	347	281
January–September	1,790	1,340	1,270	1,160	76	70	3	3	3,140	2,570

^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 SEPTEMBER 2022¹

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	168,000	201,000	124,000	149,000
Independent mill fabricators	124,000	137,000	113,000	125,000
Foundries	7,040	8,450	6,440	7,730
Other consumers	273	328	273	328
Total	299,000	347,000	243,000	281,000

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 SEPTEMBER 2022¹

(Metric tons)

	September			January–September ²		
	Stocks, opening ²	Net receipts ³	Melted or consumed	Stocks, closing	Net receipts ³	Melted or consumed
New scrap:						
Extrusion	18,700	38,400	38,400	18,700	372,000	373,000
Can stock clippings	10,500	28,600	28,600	10,500	268,000	268,000
Other wrought sheet/clippings	8,400	37,300	37,600	8,110	328,000	329,000
Casting	5,920	7,150	7,150	5,920	72,200	72,200
Borings and turnings	5,270	12,200	12,200	5,270	121,000	121,000
Dross and skimmings ⁴	18,500	47,900	47,900	18,500	406,000	406,000
Total new scrap	67,300	172,000	172,000	67,000	1,570,000	1,570,000
Old scrap:						
Used castings	8,160	26,900	26,900	8,160	249,000	249,000
Used extrusion	7,840	16,700	16,700	7,840	156,000	156,000
Used cans (shredded, loose, baled)	7,850	46,600	46,600	7,850	397,000	397,000
Other wrought products	19,100	23,100	23,100	19,100	228,000	228,000
Fragmentized shredder (auto shredder)	5,970	12,400	12,400	5,970	110,000	110,000
Total old scrap	48,900	126,000	126,000	48,900	1,140,000	1,140,000
Total all classes	116,000	297,000	297,000	116,000	2,710,000	2,710,000

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 SEPTEMBER 2022^{1,2}

(Metric tons)

	September				January–September	
	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	25,800	25,800
380 and variations	7,970	18,900	18,900	7,970	170,000	170,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,950	2,830	2,830	1,950	25,500	25,500
No. 319 and variations	2,230	2,000	2,000	2,230	18,000	18,000
F-132 alloy and variations	143	221	221	143	1,990	1,990
Al-Zn alloys	172	85	85	172	765	765
Al-Si alloys (0.6% to 2.0% Cu)	101	166	166	101	1,490	1,490
Al-Cu alloys (1.5% Si, max.)	405	564	564	405	5,080	5,080
Other ⁴	7,250	8,250	8,250	7,250	74,300	74,300
Wrought alloys, extrusion billets	10,700	54,800	54,800	10,700	501,000	501,000
Total all alloys	33,400	90,700	90,700	33,400	825,000	825,000
Less:						
Primary aluminum consumed	XX	16,600	XX	XX	153,000	XX
Primary silicon consumed	XX	1,680	XX	XX	15,100	XX
Other alloying ingredients consumed	XX	791	XX	XX	7,180	XX
Net metallic recovery from aluminum scrap consumed in production of secondary aluminum ingot⁵						
	XX	71,600	XX	XX	649,000	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:		
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
June	149.085	116.235
July	137.994	108.911
August	136.691	110.264
September	125.275	101.129
January–September	161.333	128.549

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:					
September	83.30	75.70	66.80	67.60	66.20
October	87.50	80.63	72.25	71.25	67.75
November	84.00	78.00	70.50	70.00	68.00
December	85.70	74.60	70.50	70.00	70.40
January–December	76.50	73.03	67.87	68.39	67.16
2022:					
January	99.38	77.75	72.75	72.13	71.75
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

Source: Fastmarkets–AMM.

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

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	September	January– September	September	January– September	September	January– September	September	January– September
Argentina	13,800	115,000	50	227	--	--	13,800	115,000
Australia	10,700	165,000	56	258	--	--	10,800	166,000
Austria	--	25	3,500	26,900	10	55	3,510	26,900
Bahrain	21,600	212,000	3,840	41,600	--	2	25,400	253,000
Belgium	--	248	1,780	9,190	--	--	1,780	9,440
Brazil	4,070	25,800	3,690	6,710	146	4,920	7,910	37,400
Canada	200,000	1,930,000	17,000	153,000	33,000	287,000	250,000	2,370,000
Chile	--	--	--	2	82	1,540	82	1,540
China ²	205	1,330	22,200	168,000	203	432	22,700	170,000
Colombia	--	--	344	2,630	360	4,250	704	6,880
Costa Rica	--	--	9	123	155	1,920	164	2,050
France	26	1,830	735	4,490	19	160	780	6,480
Germany	34	1,790	4,330	30,300	244	1,310	4,610	33,400
Greece	--	--	3,200	20,800	--	172	3,200	21,000
Guatemala	--	--	19	19	436	6,470	455	6,490
Honduras	--	--	255	2,240	24	1,540	279	3,780
India	5,600	81,100	1,300	14,300	--	1	6,900	95,500
Indonesia	--	922	966	10,800	--	--	966	11,700
Italy	--	1,330	590	10,200	--	4	590	11,500
Japan	--	1	4,450	40,600	13	66	4,460	40,700
Korea, Republic of	3,080	22,700	10,300	95,000	--	66	13,400	118,000
Malaysia	--	204	840	9,890	--	--	840	10,100
Mexico	1,200	11,700	5,950	65,400	14,200	163,000	21,300	240,000
Netherlands	26	599	225	1,850	200	1,070	451	3,520
Norway	76	3,520	592	8,070	--	--	668	11,600
Oman	--	624	15,200	92,000	--	--	15,200	92,600
Qatar	692	54,200	59	62	--	--	751	54,200
Romania	--	--	13	809	--	--	13	809
Russia	320	165,000	41	6,350	--	--	361	172,000
Saudi Arabia	--	--	2,760	24,100	--	--	2,760	24,100
South Africa	--	2,940	2,600	33,700	--	2,170	2,600	38,800
Spain	161	1,860	722	8,670	--	1	883	10,500
Sweden	--	4,970	1,320	8,300	--	--	1,320	13,300
Switzerland	--	89	1,410	5,090	--	99	1,410	5,280
Taiwan	--	162	497	4,360	--	3	497	4,530
Thailand	94	1,790	4,590	78,500	33	151	4,710	80,500
Turkey	1,260	12,600	3,260	38,800	--	(3)	4,520	51,400
United Arab Emirates	53,500	347,000	675	7,650	--	97	54,200	355,000
United Kingdom	11	48	907	12,800	--	117	918	13,000
Vietnam	--	9	2,970	31,000	--	22	2,970	31,100
Other	1	64	4,370	52,800	1,140	17,100	5,510	69,900
Total	317,000	3,160,000	128,000	1,130,000	50,200	494,000	495,000	4,780,000

-- 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 SEPTEMBER 2022¹

(Metric tons)

Country or locality	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	September	January– September	September	January– September	September	January– September	September	January– September
Australia	19	797	79	237	--	--	98	1,030
Belgium	--	6	19	318	1,250	15,000	1,270	15,300
Brazil	3	32	169	1,050	41	751	213	1,840
Canada	5,200	50,800	23,900	199,000	11,300	90,300	40,300	340,000
China ²	38	1,500	161	2,490	6,500	121,000	6,690	125,000
Colombia	--	31	29	215	291	1,360	320	1,600
Dominican Republic	1	5	38	202	257	2,190	296	2,400
France	--	147	177	1,880	97	690	274	2,720
Germany	1,120	1,500	106	932	467	4,510	1,690	6,940
Guatemala	--	1	(3)	57	--	2	(3)	60
India	1	218	114	353	41,800	356,000	41,900	357,000
Indonesia	--	3	(3)	36	8,420	49,400	8,420	49,500
Ireland	5	30	21	167	--	--	26	197
Israel	(3)	2	76	656	--	(3)	76	658
Italy	(3)	9	65	394	1,050	10,300	1,110	10,700
Jamaica	--	20	1	7	--	--	1	27
Japan	19	498	275	1,800	1,570	20,100	1,870	22,400
Korea, Republic of	14	494	246	1,420	20,800	218,000	21,100	220,000
Malaysia	6,180	31,400	20	501	42,000	291,000	48,200	323,000
Mexico	12,600	106,000	15,000	119,000	13,800	154,000	41,400	378,000
Netherlands	13	54	28	219	739	5,620	780	5,890
New Zealand	--	--	40	300	--	--	40	300
Norway	(3)	7	(3)	18	--	--	(3)	25
Pakistan	--	--	--	24	1,940	12,900	1,940	13,000
Panama	(3)	2	8	36	--	40	8	78
Philippines	--	4	12	106	129	4,740	141	4,850
Poland	--	14	35	354	--	11	35	379
Romania	(3)	(3)	3	32	--	--	3	32
Russia	--	--	--	6	--	2,720	--	2,720
Saudi Arabia	--	(3)	2	22	--	--	2	22
Singapore	60	355	7	291	--	721	67	1,370
Spain	(3)	(3)	11	90	535	4,100	546	4,190
Taiwan	115	781	143	1,030	4,540	28,200	4,800	30,100
Thailand	(3)	29	4	158	8,090	76,500	8,090	76,700
Turkey	--	(3)	40	622	211	12,100	251	12,700
United Arab Emirates	--	45	254	4,290	439	4,150	693	8,490
United Kingdom	25	483	131	1,100	117	1,970	273	3,560
Vietnam	--	3	2	62	1,540	10,300	1,550	10,300
Other	17	603	226	1,820	1,930	13,500	2,180	15,900
Total	25,500	195,000	41,400	341,000	170,000	1,510,000	237,000	2,050,000

-- 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.