

ALUMINUM¹

(Data in thousand metric tons unless otherwise specified)

Domestic Production and Use: In 2024, two companies operated four primary aluminum smelters in four States. Two of these smelters operated at full capacity throughout the year, whereas two smelters operated at reduced capacity. One smelter located in Hawesville, KY, has been temporarily shut down since 2022, and another smelter in New Madrid, MO, was temporarily shut down in January. Domestic smelter capacity was 1.36 million tons per year in 2024, unchanged from that in 2023. Estimated primary production decreased by 11% from that in 2023, whereas estimated secondary production from new and old scrap was 5% more than that in 2023. Based on published prices, the value of primary aluminum production was about \$1.9 billion, 9% less than that in 2023. The estimated average annual U.S. market price increased by 3% from that in 2023. Transportation applications accounted for 36% of domestic consumption; the remainder was used in packaging, 23%; building, 14%; electrical, 9%; consumer durables and machinery, 8% each; and other, 2%.

Salient Statistics—United States:	2020	2021	2022	2023	2024^e
Production:					
Primary	1,010	889	861	750	670
Secondary (from old scrap)	1,420	1,520	1,480	1,560	1,600
Secondary (from new scrap)	1,630	1,780	1,920	1,870	2,000
Imports for consumption:					
Crude and semimanufactures	4,260	4,820	5,710	4,890	4,800
Scrap	542	679	685	677	660
Exports:					
Crude and semimanufactures	906	900	1,040	1,230	1,400
Scrap	1,840	2,100	2,000	2,060	1,600
Consumption, apparent ²	3,930	4,020	4,890	4,150	4,300
Supply, apparent ³	5,560	5,800	6,810	6,010	6,300
Price, ingot, average U.S. market (spot), cents per pound ⁴	89.7	138.5	152.6	125.9	130
Stocks, yearend:					
Aluminum industry	1,490	1,870	2,050	1,820	1,600
London Metal Exchange (LME), U.S. warehouses ⁵	235	69	9	5	10
Employment, number ⁶	30,100	28,900	30,200	30,500	30,000
Net import reliance ⁷ as a percentage of apparent consumption	38	40	52	44	47

Recycling: In 2024, aluminum recovered from purchased scrap in the United States was about 3.6 million tons, of which about 56% came from new scrap (manufacturing) and 44% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 37% of apparent consumption.

Import Sources (2020–23): Canada, 56%; United Arab Emirates, 8%; Bahrain, 4%; China,⁸ 3%; and other, 29%.

Tariff:	Item	Number	Normal Trade Relations 12–31–24
Aluminum, not alloyed:			
	Unwrought (in coils)	7601.10.3000	2.6% ad valorem.
	Unwrought (greater than 99.8% aluminum)	7601.10.6030	Free.
	Aluminum alloys, unwrought (billet)	7601.20.9045	Free.
Aluminum scrap:			
	Used beverage container scrap	7602.00.0035	Free.
	Industrial process scrap	7602.00.0095	Free.
	Other	7602.00.0097	Free.

Depletion Allowance: Not applicable.¹

Government Stockpile:⁹

Material	FY 2024		FY 2025	
	Potential acquisitions	Potential disposals	Potential acquisitions	Potential disposals
Aluminum, high-purity and alloys	18.5	—	3.2	—

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Events, Trends, and Issues: In January 2024, a 263,000-ton-per-year primary aluminum smelter in New Madrid, MO, shut down its full production with no scheduled restart. In June, a Republic of Korea-based auto parts manufacturer opened a \$128 million production and casting facility in Tuskegee, AL. The facility produced aluminum components for an automobile manufacturing plant in Montgomery, AL. In September, construction began on a \$40 million aluminum recycling facility in Russellville, KY, which will process dross and scrap from a nearby aluminum casting plant. Also in September, a United Arab Emirates-based aluminum producer announced the acquisition of a 110,000-ton-per-year United States-based secondary aluminum producer located in Rosemont, MN.

In March, the U.S. Department of Energy announced grants to four aluminum operations, including \$500 million to build a new aluminum smelter within the Ohio River and Mississippi River Basins; \$75 million to build a low-carbon aluminum casting plant in Ravenswood, WV; \$67.3 million to build a low-waste recycling facility in Wabash, IN; and \$22.3 million to upgrade casting and rolling equipment at a casting and rolling mill in Fort Lupton, CO. In July, the U.S. Department of Defense awarded \$23 million to increase aluminum casting capacity by as much as 136,000 tons per year at an aluminum rolling facility in Muscle Shoals, AL.

In April, the United States coordinated with the United Kingdom to ban imports of aluminum from Russia into both countries and to restrict the sale of these metals on global metal exchanges and in over-the-counter derivative trading. In July, the United States imposed 10% duties on imports of aluminum products and derivative aluminum products from Mexico that contain primary aluminum for which the primary or secondary country of smelt or the most recent country of cast was Belarus, China, Iran, or Russia. In September, the United States increased tariffs on aluminum products imported from China, from 0%–7.5% to 25%.

World Smelter Production and Capacity: Capacity data for China, India, and other countries were revised based on company and Government reports.

	Smelter production		Yearend capacity	
	2023	2024 ^e	2023	2024 ^e
United States	750	670	1,360	1,360
Australia	1,560	1,500	1,730	1,730
Bahrain	1,620	1,600	1,600	1,600
Brazil	1,020	1,100	1,280	1,280
Canada	^e 3,200	3,300	3,270	3,270
China	41,600	43,000	44,400	44,700
Iceland	^e 770	780	880	880
India	^e 4,100	4,200	4,100	4,200
Malaysia	^e 940	870	1,080	1,080
Norway	^e 1,300	1,300	1,460	1,460
Russia	^e 3,700	3,800	4,080	4,080
United Arab Emirates	2,660	2,700	2,790	2,790
Other countries	<u>6,780</u>	<u>6,800</u>	<u>10,300</u>	<u>10,000</u>
World total (rounded)	70,000	72,000	78,300	78,400

World Resources:¹⁰ Global resources of bauxite are estimated to be between 55 billion and 75 billion tons and are sufficient to meet world demand for aluminum metal well into the future.

Substitutes: Composites can substitute for aluminum in aircraft fuselages and wings. Glass, paper, plastics, and steel can substitute for aluminum in packaging. Composites, magnesium, steel, and titanium can substitute for aluminum in ground transportation uses. Composites, steel, vinyl, and wood can substitute for aluminum in construction. Copper can replace aluminum in electrical and heat-exchange applications.

^eEstimated. — Zero.

¹See also the Bauxite and Alumina chapter.

²Defined as primary production + secondary production from old scrap + imports – exports ± adjustments for stock changes; excludes imported scrap.

³Defined as primary production + secondary production + imports – exports ± adjustments for stock changes; excludes imported scrap.

⁴Source: S&P Global Platts Metals Week.

⁵Includes off-warrant stocks of primary and alloyed aluminum.

⁶Alumina and aluminum production workers (North American Industry Classification System—3313). Source: U.S. Department of Labor, Bureau of Labor Statistics.

⁷Defined as imports – exports ± adjustments for industry stock changes; excludes imported scrap.

⁸Includes Hong Kong.

⁹See Appendix B for definitions.

¹⁰See Appendix C for resource and reserve definitions and information concerning data sources.