

# ALUMINUM<sup>1</sup>

(Data in thousand metric tons unless otherwise noted)

**Domestic Production and Use:** In 2021, three companies operated six primary aluminum smelters in five States. Two smelters operated at full capacity and four smelters operated at reduced capacity throughout the year. Another smelter remained on standby throughout the year, and one that had been on standby since 2015 was permanently shut down in December. Domestic smelters were operating at about 55% of capacity of 1.64 million tons per year at yearend 2021. Estimated primary production decreased by 13% compared with that in 2020 but estimated secondary production from new and old scrap increased by 5% compared with that in 2021. Based on published prices, the value of primary aluminum production was about \$2.70 billion, 35% more than the value in 2020. The average annual U.S. market price increased by about 55% from that in 2020. Transportation applications accounted for 35% of domestic consumption; in descending order of consumption, the remainder was used in packaging, 23%; building, 16%; electrical, 9%; consumer durables, 7%; machinery, 7%; and other, 3%.

<b>Salient Statistics—United States:</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021<sup>e</sup></b>
Production:					
Primary	741	891	1,093	1,012	880
Secondary (from old scrap)	1,590	1,570	1,540	1,420	1,500
Secondary (from new scrap)	2,050	2,140	1,920	1,630	1,700
Imports for consumption:					
Crude and semimanufactures	6,220	5,550	5,280	4,320	4,800
Scrap	700	695	596	542	700
Exports:					
Crude and semimanufactures	1,330	1,310	1,110	905	820
Scrap	1,570	1,760	1,860	1,850	2,000
Consumption, apparent <sup>2</sup>	5,680	4,900	4,980	3,980	4,300
Supply, apparent <sup>3</sup>	7,730	7,040	6,910	5,620	6,000
Price, ingot, average U.S. market (spot), cents per pound	98.3	114.7	99.5	89.7	140
Stocks, yearend:					
Aluminum industry	1,470	1,570	1,600	1,490	1,700
London Metal Exchange (LME), U.S. warehouses <sup>4</sup>	254	186	<sup>e</sup> 120	235	100
Employment, number <sup>5</sup>	31,700	31,600	32,900	30,100	30,000
Net import reliance <sup>6</sup> as a percentage of apparent consumption	59	50	47	39	44

**Recycling:** In 2021, aluminum recovered from purchased scrap in the United States was about 3.2 million tons, of which about 53% came from new (manufacturing) scrap and 47% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 30% of apparent consumption.

**Import Sources (2017–20):** Canada, 50%; the United Arab Emirates, 9%; Russia, 6%; China,<sup>7</sup> 4%; and other, 31%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12–31–21</b>
	Aluminum, not alloyed:		
	Unwrought (in coils)	7601.10.3000	2.6% ad valorem.
	Unwrought (other than aluminum alloys)	7601.10.6000	Free.
	Aluminum alloys, unwrought (billet)	7601.20.9045	Free.
	Aluminum scrap:		
	Used beverage container scrap	7602.00.0030	Free.
	Industrial process scrap	7602.00.0091	Free.

**Depletion Allowance:** Not applicable.<sup>1</sup>

**Government Stockpile:** None.

**Events, Trends, and Issues:** In March, a primary aluminum smelter in Mount Holly, SC, signed a new power supply contract through the end of 2023. The contract would provide enough power for the 230,000-ton-per-year smelter to restart about 57,000 tons per year of capacity. The smelter had only been producing at a rate of 115,000 tons per year. The restart of the additional capacity was expected to be completed early in 2022 after maintenance was completed. In December, the temporary shutdown of a 146,000-ton-per-year smelter in Wenatchee, WA, was made permanent. The smelter last produced in 2015. Prices for aluminum generally trended upward throughout 2021 in the United States and in world markets. High power prices attributed to higher coal prices and shutdowns of powerplants complying with environmental regulations were cited for increased aluminum prices in China, the world's leading

## ALUMINUM

producer. Additionally, higher prices for alumina amid shutdowns of alumina refineries in Brazil and China in July and in Jamaica in August added pressure to production costs for smelters.

In June, the U.S. Department of Commerce (DOC) opened the Aluminum Import Monitoring and Analysis (AIM) system (<https://www.trade.gov/aluminum>) for submitting applications for required licenses to import covered aluminum products. The AIM system is intended to aid in enforcement of trade agreements and circumvent evasion of tariffs and quotas on aluminum and aluminum products. In October, an agreement was reached between the United States and the European Union to remove the 10% ad valorem tariff on aluminum imports that was imposed in 2018 under the authority of section 232 of the Trade Expansion Act of 1964. Effective in January 2022, the tariff would only be applied on imports from countries in the European Union that exceed specified quotas.

In 2021, the DOC issued final determinations of antidumping and countervailing duty investigations for aluminum foil imports and common alloy aluminum sheet imports. Foil imports from China between August 14, 2017, and December 31, 2018, had antidumping duty rates assessed that ranged from 23.62% to 47.57% and countervailing duty rates that ranged from 17.05% to 48.36%. Final countervailing determinations of aluminum foil imports from Oman and Turkey in 2019 were made by the U.S. International Trade Commission in September with countervailing duty rates set at 1.93% for imports from Oman and 2.6% for imports from Turkey. In October, the DOC issued final antidumping duty rates for aluminum foil imported between July 1, 2019, and June 30, 2020, ranging from 29.11% for Armenia, 13.93% to 63.05% for Brazil, 3.89% for Oman, and 62.18% for Russia. In March, the DOC issued its final determinations of an antidumping investigation of common alloy aluminum sheet imports from 18 countries and determined that imports produced in 16 countries were sold below fair market value. The countervailing duty investigation determined that producers in three countries also benefited from Government subsidy programs.

**World Smelter Production and Capacity:** Capacity data for Bahrain, China, the United Arab Emirates, and the United States were revised based on company and Government data.

	Smelter production		Yearend capacity	
	2020	2021 <sup>e</sup>	2020	2021 <sup>e</sup>
United States	1,012	880	1,790	1,640
Australia	1,580	1,600	1,720	1,720
Bahrain	1,550	1,500	1,550	1,550
Canada	3,120	3,100	3,270	3,270
China	37,100	39,000	42,300	43,000
Iceland	860	880	890	890
India	3,560	3,900	4,060	4,060
Norway	1,330	1,400	1,430	1,430
Russia	3,640	3,700	4,020	4,020
United Arab Emirates	2,520	2,600	2,700	2,780
Other countries	<u>8,880</u>	<u>9,400</u>	<u>12,300</u>	<u>12,300</u>
World total (rounded)	65,100	68,000	76,000	77,000

**World Resources:**<sup>8</sup> Global resources of bauxite are estimated to be between 55 billion and 75 billion tons and are sufficient to meet world demand for 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.

<sup>e</sup>Estimated.

<sup>1</sup>See also Bauxite and Alumina.

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

<sup>3</sup>Defined as primary production + secondary production + imports – exports + adjustments for stock changes; excludes imported scrap.

<sup>4</sup>Includes aluminum alloy. Starting with 2019, also includes off-warrant stocks of primary and alloyed aluminum; estimated for 2019.

<sup>5</sup>Alumina and aluminum production workers (North American Industry Classification System—3313). Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>6</sup>Defined as imports – exports + adjustments for industry stock changes; excludes imported scrap.

<sup>7</sup>Includes Hong Kong.

<sup>8</sup>See Appendix C for resource and reserve definitions and information concerning data sources.