

**ALUMINUM<sup>1</sup>**

(Data in thousand metric tons of metal unless otherwise noted)

**Domestic Production and Use:** In 2006, 5 companies operated 13 primary aluminum smelters; 6 smelters were temporarily idled. Based upon published market prices, the value of primary metal production was \$6 billion. Aluminum consumption was centered in the East Central United States. Transportation accounted for an estimated 40% of domestic consumption; the remainder was used in packaging, 28%; building, 13%; consumer durables, 7%; electrical, 5%; and other, 7%.

<b>Salient Statistics—United States:</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006<sup>e</sup></b>
Production:					
Primary	2,707	2,703	2,516	2,481	2,300
Secondary (from old scrap)	1,170	1,070	1,160	1,060	1,100
Imports for consumption	4,060	4,130	4,720	5,330	5,400
Exports	1,590	1,540	1,820	2,370	2,800
Consumption, apparent <sup>2</sup>	6,320	6,130	6,590	6,460	6,100
Price, ingot, average U.S. market (spot), cents per pound	64.9	68.1	84.0	91.0	120.0
Stocks:					
Aluminum industry, yearend	1,320	1,400	1,470	1,430	1,400
LME, U.S. warehouses, yearend <sup>3</sup>	45	207	116	209	180
Employment, number <sup>4</sup>	61,700	58,000	57,500	58,400	59,000
Net import reliance <sup>5</sup> as a percentage of apparent consumption	39	38	44	45	44

**Recycling:** In 2006, aluminum recovered from purchased scrap was about 3 million tons, of which about 64% came from new (manufacturing) scrap and 36% from old scrap (discarded aluminum products). Aluminum recovered from old scrap was equivalent to about 18% of apparent consumption.

**Import Sources (2002-05):** Canada, 55%; Russia, 18%; Venezuela, 4%; Brazil, 4%; and other, 19%.

<b>Tariff: Item</b>	<b>Number</b>	<b>Normal Trade Relations 12-31-06</b>
Unwrought (in coils)	7601.10.3000	2.6% ad val.
Unwrought (other than aluminum alloys)	7601.10.6000	Free.
Waste and scrap	7602.00.0000	Free.

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

**Government Stockpile:** None.

## ALUMINUM

**Events, Trends, and Issues:** Domestic primary aluminum production decreased slightly owing to cutbacks attributed to increased energy and alumina costs. Domestic smelters operated at about 62% of rated or engineered capacity.

Imports for consumption increased slightly, filling some of the supply deficit created by the decrease in domestic production. Canada and Russia accounted for approximately two-thirds of total imports. U.S. exports also increased in 2006. China, Canada, and Mexico, in descending order, received more than three-fourths of total U.S. exports. Most of the shipments to China (95%) were in the form of aluminum scrap.

The price of primary aluminum fluctuated through September 2006, but was generally higher than that of 2005. In January, the average monthly U.S. market price for primary ingot quoted by Platts Metals Week was \$1.118 per pound; it reached a high of \$1.355 per pound in May; and in September, the price was \$1.170 per pound. Prices on the London Metal Exchange (LME) followed the trend of U.S. market prices. The monthly average LME cash price for September was \$1.121 per pound.

World primary aluminum production continued to increase as capacity expansions outside the United States were brought onstream. Inventories of metal held by producers, as reported by the International Aluminium Institute, decreased through the end of September to about 2.9 million tons from 3.2 million tons at yearend 2005. Inventories of primary aluminum metal held by the LME increased during the year to 691,000 tons at the end of September from 644,000 tons at yearend 2005.

### World Smelter Production and Capacity:

	Production		Yearend capacity	
	2005	2006 <sup>e</sup>	2005	2006 <sup>e</sup>
United States	2,481	2,300	3,700	3,700
Australia	1,900	1,900	1,900	1,950
Bahrain	751	830	750	850
Brazil	1,500	1,600	1,500	1,600
Canada	2,890	3,000	2,900	3,060
China	7,800	8,700	10,000	10,500
Germany	668	530	670	670
India	898	1,000	950	1,150
Mozambique	555	560	560	570
Norway	1,370	1,360	1,390	1,360
Russia	3,650	3,720	3,700	3,800
South Africa	851	890	860	900
United Arab Emirates, Dubai	750	770	750	770
Venezuela	610	615	650	650
Other countries	<u>5,190</u>	<u>5,340</u>	<u>5,800</u>	<u>5,900</u>
World total (rounded)	31,900	33,100	36,100	37,400

**World Resources:** Domestic aluminum requirements cannot be met by domestic bauxite resources. Domestic nonbauxitic aluminum resources are abundant and could meet domestic aluminum demand. However, no processes for using these resources have been proven economically competitive with those now used for bauxite. The world reserve base for bauxite is sufficient to meet world demand for metal well into the future.

**Substitutes:** Copper can replace aluminum in electrical applications; magnesium, titanium, and steel can substitute for aluminum in structural and ground transportation uses. Composites, steel, and wood can substitute for aluminum in construction. Glass, paper, plastics, and steel can substitute for aluminum in packaging.

<sup>e</sup>Estimated.

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

<sup>2</sup>Domestic primary metal production + recovery from old aluminum scrap + net import reliance.

<sup>3</sup>Includes aluminum alloy.

<sup>4</sup>Alumina and aluminum production workers (North American Industry Classification System—3313). Source: U.S. Department of Labor, Bureau of Labor Statistics.

<sup>5</sup>Defined as imports – exports + adjustments for Government and industry stock changes.