

GYPSUM

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2021, domestic production of crude gypsum was estimated to be 23 million tons with a value of about \$210 million. The leading crude gypsum-producing States were estimated to be California, Iowa, Kansas, Nevada, Oklahoma, Texas, and Utah. Overall, 47 companies produced or processed gypsum in the United States at 52 mines in 16 States. The majority of domestic consumption, which totaled approximately 43 million tons, was used by agriculture, cement production, and manufacturers of wallboard and plaster products. Small quantities of high-purity gypsum, used in a wide range of industrial processes, accounted for the remaining tonnage. At the beginning of 2021, the production capacity of 63 operating gypsum panel manufacturing plants in the United States was about 34.1 billion square feet¹ per year. Total wallboard sales in 2021 were estimated to be 28.0 billion square feet.

<u>Salient Statistics—United States:</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021^e</u>
Production:					
Crude	20,700	21,100	21,700	21,200	23,000
Synthetic ²	20,700	16,600	14,400	13,000	13,000
Calcined ³	17,800	17,500	17,900	17,900	19,000
Wallboard products sold, million square feet ¹	25,000	23,700	25,900	26,200	28,000
Imports, crude, including anhydrite	4,800	5,210	6,140	6,030	6,900
Exports, crude, not ground or calcined	36	36	37	32	35
Consumption, apparent ⁴	46,200	42,900	42,200	40,200	43,000
Price, average, dollars per metric ton:					
Crude, free on board (f.o.b.) mine	7.5	8.3	8.6	8.6	9
Calcined, f.o.b. plant	30	32	34	5	37
Employment, mine and calcining plant, number ^e	4,500	4,500	4,500	4,500	4,500
Net import reliance ⁵ as a percentage of apparent consumption	10	12	15	15	16

Recycling: Approximately 700,000 tons of gypsum scrap that was generated by wallboard manufacturing was recycled onsite. The recycling of wallboard from new construction and demolition sources also took place, although those amounts are unknown. Recycled gypsum was used primarily for agricultural purposes and feedstock for the manufacture of new wallboard. Other potential markets for recycled gypsum include athletic-field marking, cement production (as a stucco additive), grease absorption, sludge drying, and water treatment.

Import Sources (2017–20): Mexico, 36%; Spain, 32%; Canada, 29%; and other, 3%.

<u>Tariff:</u>	<u>Item</u>	<u>Number</u>	<u>Normal Trade Relations</u>
			<u>12–31–21</u>
	Gypsum; anhydrite	2520.10.0000	Free.

Depletion Allowance: 14% (domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: U.S. crude gypsum production increased by an estimated 8%, and apparent consumption increased by 7% compared with that in 2020. U.S. gypsum imports increased by an estimated 14% compared with those in 2020. Exports, although very low compared with imports and often subject to wide fluctuations, increased by an estimated 9%.

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Demand for gypsum depends principally on construction industry activity, particularly in the United States, where the majority of gypsum consumed is used for agriculture, building plasters, the manufacture of portland cement, and wallboard products. Despite disruptions caused by the global COVID-19 pandemic, the production of gypsum was not affected.

The United States, the world's leading crude gypsum producer, produced an estimated 23 million tons. Iran was the second-leading producer with an estimated 16 million tons of crude production, followed by China with 13 million tons. Increased use of wallboard in Asia, coupled with new gypsum product plants, spurred increased production in the region. As wallboard becomes more widely used, worldwide gypsum production is expected to increase.

World Mine Production and Reserves:

	Mine production		Reserves ⁶
	2020	2021 ^e	
United States	21,200	23,000	700,000
Algeria	2,500	2,500	NA
Brazil	2,000	2,000	450,000
Canada	2,400	2,900	450,000
China	12,600	13,000	NA
France	1,890	1,900	350,000
Germany	4,500	4,500	NA
India	1,500	1,500	37,000
Iran	16,000	16,000	NA
Japan	4,300	4,300	NA
Mexico	5,400	5,400	NA
Oman	10,200	10,000	NA
Pakistan	2,210	2,200	6,000
Russia	4,200	4,200	NA
Saudi Arabia	3,300	3,300	NA
Spain	11,000	11,000	NA
Thailand	9,800	9,800	1,700
Turkey	7,500	9,300	200,000
Other countries	<u>21,700</u>	<u>22,000</u>	<u>NA</u>
World total (rounded)	144,000	150,000	Large

World Resources:⁶ Reserves are large in major producing countries, but data for most are not available. Domestic gypsum resources are adequate but unevenly distributed. Large imports from Canada augment domestic supplies for wallboard manufacturing in the United States, particularly in the eastern and southern coastal regions. Imports from Mexico supplement domestic supplies for wallboard manufacturing along portions of the United States western seaboard. Large gypsum deposits occur in the Great Lakes region, the midcontinent region, and several Western States. Foreign resources are large and widely distributed; 78 countries were thought to produce gypsum in 2021.

Substitutes: In such applications as stucco and plaster, cement and lime may be substituted for gypsum; brick, glass, metallic or plastic panels, and wood may be substituted for wallboard. Gypsum has no practical substitute in the manufacturing of portland cement. Synthetic gypsum generated by various industrial processes, including flue gas desulfurization of smokestack emissions, is very important as a substitute for mined gypsum in wallboard manufacturing, cement production, and agricultural applications (in descending order by tonnage). In 2021, synthetic gypsum was estimated to account for about 30% of the total domestic gypsum supply.

^eEstimated. NA Not available.

¹The standard unit used in the U.S. wallboard industry is square feet; multiply square feet by 9.29×10^{-2} to convert to square meters. Source: The Gypsum Association.

²Synthetic gypsum used; the majority of these data were obtained from the American Coal Ash Association.

³From domestic crude and synthetic gypsum.

⁴Defined as domestic crude production + synthetic used + imports – exports.

⁵Defined as imports – exports.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.