

GYPSUM

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2022, domestic production of crude gypsum was estimated to be 21 million tons with a value of about \$250 million. The leading crude-gypsum-producing States were estimated to be California, Iowa, Kansas, Nevada, Oklahoma, and Texas. 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 42 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 2022, the production capacity of 63 operating gypsum panel manufacturing plants in the United States was about 34 billion square feet¹ per year. Total wallboard sales in 2022 were estimated to be 28 billion square feet.

<u>Salient Statistics—United States:</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022^e</u>
Production:					
Crude	21,100	21,700	21,500	21,300	21,000
Synthetic ²	16,600	14,400	13,000	13,000	14,000
Calcined ³	17,500	17,900	17,900	18,600	20,000
Wallboard products sold, million square feet ¹	23,700	25,900	26,200	27,300	28,000
Imports, crude, including anhydrite	5,210	6,140	6,030	6,520	6,800
Exports, crude, not ground or calcined	36	37	32	42	40
Consumption, apparent ⁴	42,900	42,200	40,500	40,800	42,000
Price, average, dollars per metric ton:					
Crude, free on board (f.o.b.) mine	8.3	8.6	8.6	11	12
Calcined, f.o.b. plant	32	34	35	42	44
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	12	15	15	16	16

Recycling: Approximately 700,000 tons per year 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 (2018–21): Mexico, 35%; Spain, 33%; Canada, 28%; and other, 4%.

<u>Tariff:</u>	<u>Item</u>	<u>Number</u>	<u>Normal Trade Relations</u>
			<u>12–31–22</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 was estimated to have decreased slightly, whereas apparent consumption increased by 3% compared with that in 2021. U.S. gypsum imports increased by an estimated 4% compared with those in 2021. Exports, although very low compared with imports and often subject to wide fluctuations, decreased by an estimated 5%.

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 coronavirus disease 2019 (COVID-19) pandemic, the production of gypsum was not affected.

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The United States, the world's leading crude gypsum producer, produced an estimated 21 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: Reserves for China were revised based on Government reports.

	Mine production		Reserves⁶
	2021	2022^e	
United States	21,300	21,000	700,000
Algeria	^e 2,500	2,500	NA
Brazil	^e 2,000	2,000	450,000
Canada	^e 2,400	2,400	450,000
China	12,600	13,000	1,500,000
France	1,950	2,000	350,000
Germany	5,200	5,200	NA
India	^e 4,300	4,300	37,000
Iran	^e 16,000	16,000	NA
Japan	^e 4,300	4,300	NA
Mexico	^e 5,400	5,400	NA
Oman	12,300	12,000	NA
Pakistan	1,820	1,800	6,000
Russia	^e 4,100	4,100	NA
Saudi Arabia	3,990	4,000	NA
Spain	^e 11,000	11,000	NA
Thailand	^e 9,300	9,300	1,700
Turkey	^e 9,300	9,300	200,000
Uzbekistan	2,200	2,200	NA
Other countries	<u>21,000</u>	<u>22,000</u>	<u>NA</u>
World total (rounded)	153,000	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; 81 countries were estimated to produce gypsum in 2022.

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 2022, synthetic gypsum was estimated to account for about 25% 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 0.0929 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 gypsum and synthetic gypsum.

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

⁵Defined as imports – exports.

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