

GYPSUM

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2013, domestic production of crude gypsum was estimated to be 16.3 million tons with a value of about \$130 million. The leading crude gypsum-producing States were, in descending order, Texas, Oklahoma, Nevada, California, and Indiana, which together accounted for 62% of total output. Overall, 47 companies produced or processed gypsum in the United States at 118 mines and plants in 17 States. Approximately 90% of domestic consumption, which totaled approximately 27 million tons, was accounted for by manufacturers of wallboard and plaster products. Approximately 1.6 million tons of gypsum used in cement production and agricultural applications and small amounts of high-purity gypsum in a wide range of industrial processes accounted for the remaining tonnage. At the beginning of 2013, the production capacity of operating wallboard plants in the United States was about 33 billion square feet¹ per year.

Salient Statistics—United States:	2009	2010	2011	2012	2013^e
Production:					
Crude	11,500	10,200	10,500	15,800	16,300
Synthetic ²	8,120	10,700	11,800	11,800	12,300
Calcined ³	13,400	12,400	11,900	12,800	13,200
Wallboard products sold (million square feet ¹)	18,300	17,100	17,200	18,900	19,500
Imports, crude, including anhydrite	4,220	3,330	3,330	3,250	3,200
Exports, crude, not ground or calcined	156	360	316	408	290
Consumption, apparent ⁴	23,700	23,900	25,300	30,400	31,500
Price:					
Average crude, f.o.b. mine, dollars per metric ton	7.40 ^f	6.90	8.20 ^f	7.70	8.00
Average calcined, f.o.b. plant, dollars per metric ton	35.30 ^f	29.70	28.70 ^f	28.70	29.00
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	17	12	12	9	9

Recycling: Some of the more than 4 million tons of gypsum scrap that was generated by wallboard manufacturing, wallboard installation, and building demolition was recycled. The 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 (2009–12): Canada, 51%; Mexico, 36%; and Spain, 13%.

Tariff:	Item	Number	Normal Trade Relations
			12–31–13
	Gypsum; anhydrite	2520.10.0000	Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: U.S. gypsum production increased 3% compared with that of 2012 because the housing and construction markets increased in activity. Apparent consumption increased by 4% compared with that of 2012. The world's leading gypsum producer, China, produced about three times the amount produced in the United States. Iran, ranked third in world production, supplied much of the gypsum needed for construction in the Middle East. Spain, the leading European producer, ranked fifth in the world and supplied crude gypsum and gypsum products to much of Western Europe. An increased use of wallboard in Asia, coupled with new gypsum product plants, spurred increased production in that region. Should additional cultures utilize wallboard within their respective construction sectors, worldwide production of gypsum is expected to increase.

Demand for gypsum depends principally on the strength of the construction industry, particularly in the United States, where about 95% of consumed gypsum is used for building plasters, the manufacture of portland cement, and wallboard products. If the construction of wallboard manufacturing plants designed to use synthetic gypsum from flue gas desulfurization (FGD) units as feedstock continues, this will result in less mining of natural gypsum. The availability of inexpensive natural gas, however, may limit the increase of future FGD units and, therefore, the production of synthetic gypsum. Gypsum imports decreased slightly compared with those of 2012. Exports, although very low compared with imports and often subject to wide fluctuations, decreased by 29%.

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World Mine Production and Reserves:

	Mine production		Reserves ⁶
	<u>2012</u>	<u>2013^e</u>	
United States	15,800	16,300	700,000
Algeria	1,700	1,700	NA
Argentina	1,400	1,300	NA
Australia	2,500	3,000	NA
Brazil	3,230	3,200	230,000
Canada	2,550	1,900	450,000
China	48,000	50,000	NA
France	2,300	2,300	NA
Germany	1,950	1,900	NA
India	2,750	3,600	69,000
Iran	13,000	14,000	NA
Italy	4,130	4,100	NA
Japan	5,500	5,500	NA
Mexico	4,690	5,000	NA
Oman	1,900	1,900	NA
Poland	1,200	1,400	55,000
Russia	3,150	6,000	NA
Saudi Arabia	2,500	2,500	NA
Spain	7,100	7,100	NA
Thailand	9,000	9,000	NA
Turkey	2,100	2,000	NA
United Kingdom	1,700	1,700	NA
Other countries	<u>13,500</u>	<u>14,400</u>	<u>NA</u>
World total (rounded)	152,000	160,000	Large

World Resources: 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 U.S. 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; 83 countries produced gypsum in 2013.

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 tonnage order). In 2013, synthetic gypsum accounted for approximately 43% 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.

²Data refer to the amount sold or used, not produced.

³From domestic crude and synthetic.

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

⁵Defined as imports – exports.

⁶[See Appendix C for resource/reserve definitions and information concerning data sources.](#)