

GYPSUM

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2011, domestic production of crude gypsum was estimated to be 9.4 million tons with a value of about \$65.9 million. The leading crude gypsum-producing States were, in descending order, Oklahoma, Texas, Iowa, Nevada, and California, which together accounted for 58% of total output. Overall, 47 companies produced gypsum in the United States at 54 mines and plants in 34 States. Approximately 90% of domestic consumption, which totaled approximately 23 million tons, was accounted for by manufacturers of wallboard and plaster products. Approximately 1.3 million tons for cement production and agricultural applications, and small amounts of high-purity gypsum for a wide range of industrial processes accounted for the remaining tonnage. At the beginning of 2011, the production capacity of operating wallboard plants in the United States was about 27 billion square feet¹ per year.

Salient Statistics—United States:	2007	2008	2009	2010	2011^e
Production:					
Crude	15,700	12,300	10,400	8,840	9,400
Synthetic ²	8,370	9,660	8,120	10,700	11,000
Calcined ³	21,700	17,900	13,800	12,100	12,100
Wallboard products sold (million square feet ¹)	27,800	20,700	18,300	17,200	16,900
Imports, crude, including anhydrite	9,390	7,330	4,220	3,330	3,300
Exports, crude, not ground or calcined	147	149	156	360	300
Consumption, apparent ⁴	33,300	29,100	22,600	22,500	23,400
Price:					
Average crude, f.o.b. mine, dollars per metric ton	7.50	8.70	8.50	6.90	7.00
Average calcined, f.o.b. plant, dollars per metric ton	38.30	42.60	35.00	29.70	30.00
Employment, mine and calcining plant, number ^e	6,000	5,400	4,500	4,500	4,500
Net import reliance ⁵ as a percentage of apparent consumption	28	25	18	13	13

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 (2007–10): Canada, 65%; Mexico, 28%; Spain, 6%; and other, 1%.

Tariff:	Item	Number	Normal Trade Relations
	Gypsum; anhydrite	2520.10.0000	12-31-11 Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: U.S. gypsum production increased by 4% compared with that of 2010 as the housing and construction markets appeared to stabilize. Apparent consumption also increased by about 4% compared with that of 2010. China, the world's leading gypsum producer, produced more than five times the amount produced in the United States, the world's fourth ranked producer. Iran is believed to be ranked second in world production and supplied much of the gypsum needed for construction in the Middle East. Spain, the leading European producer, ranked third in the world, and supplied both 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. As more cultures recognize the economy and efficiency of wallboard use, 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. The construction of wallboard manufacturing plants designed to use synthetic gypsum as feedstock will result in less use of natural gypsum as these new plants become operational. Gypsum imports decreased slightly compared with those of 2010. Exports, although very low compared with imports, decreased by 17%.

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World Mine Production and Reserves: Reserves for Brazil, India, and Poland were revised based on information from those countries.

	Mine production		Reserves ⁶
	2010	2011 ^e	
United States	8,840	9,400	700,000
Algeria	1,700	1,700	NA
Argentina	1,360	1,400	NA
Australia	3,500	3,500	NA
Brazil	2,350	2,400	1,200,000
Canada	2,717	2,300	450,000
China	47,000	47,000	NA
Egypt	2,400	2,400	NA
France	2,300	2,300	NA
Germany	1,822	2,000	NA
India	2,650	2,700	69,000
Iran	13,000	13,000	NA
Italy	4,130	4,100	NA
Japan	5,700	5,700	NA
Mexico	3,560	3,500	NA
Poland	1,300	1,300	55,000
Russia	2,900	2,900	NA
Saudi Arabia	2,100	2,100	NA
Spain	11,500	11,500	NA
Thailand	8,500	8,500	NA
Turkey	3,200	3,200	NA
United Kingdom	1,700	1,700	NA
Other countries	<u>12,500</u>	<u>13,000</u>	<u>NA</u>
World total (rounded)	147,000	148,000	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; 86 countries produce gypsum.

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 2011, synthetic gypsum accounted for approximately 54% 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.

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.](#)