

GYPSUM

(Data in thousand metric tons, unless otherwise noted)

Domestic Production and Use: In 2002, domestic production of crude gypsum was estimated at 16.1 million tons with an estimated value of \$117 million. The top producing States were, in descending order, Oklahoma, Iowa, Nevada, Texas, California, and Arkansas, which together accounted for 66% of total output. Overall, 27 companies produced gypsum at 51 mines in 19 States, and 10 companies calcined gypsum at 66 plants in 29 States. Almost 90% of domestic consumption, which totaled approximately 31.8 million tons, was accounted for by manufacturers of wallboard and plaster products. Approximately 2.69 million tons for cement production, 0.84 million tons for agricultural applications, and small amounts of high-purity gypsum for a wide range of industrial processes, such as smelting and glassmaking, accounted for the remaining uses. At the beginning of 2002, capacity of operating wallboard plants in the United States was 36.8 billion square feet¹ per year.

Salient Statistics—United States:	1998	1999	2000	2001	2002^e
Production:					
Crude	19,000	22,400	19,500	16,300	16,100
Synthetic ²	3,000	5,200	4,950	6,820	7,700
Calcined ³	19,400	22,300	21,000	19,100	21,100
Wallboard products (million square feet ¹)	26,900	28,700	26,100	29,500	30,500
Imports, crude, including anhydrite	8,680	9,340	9,210	8,270	8,330
Exports, crude, not ground or calcined	166	112	161	295	380
Consumption, apparent ⁴	30,500	36,800	33,700	31,100	31,800
Price:					
Average crude, f.o.b. mine, dollars per ton	6.92	6.99	8.44	7.31	7.33
Average calcined, f.o.b. plant, dollars per ton	17.02	17.07	16.81	18.42	18.39
Stocks, producer, crude, yearend	1,500	1,500	1,500	1,500	1,500
Employment, mine and calcining plant, number ^e	6,000	6,000	6,000	5,900	5,900
Net import reliance ⁵ as a percentage of apparent consumption	28	25	27	26	25

Recycling: A portion of more than 4 million tons of gypsum waste generated every year by wallboard manufacturing, wallboard installation, and building demolition, was recycled. The recycled gypsum was used chiefly for agricultural purposes and new wallboard. Other potential markets for recycled gypsum waste are in athletic field marking, in cement production as a stucco additive, in grease absorption, in sludge drying, and in water treatment.

Import Sources (1998-2001): Canada, 67%; Mexico, 23%; Spain, 9%; and other, 1%.

Tariff:	Item	Number	Normal Trade Relations
	Gypsum; anhydrite	2520.10.0000	<u>12/31/02</u> Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: During 2002 and for the previous 6 years, the U.S. gypsum industry experienced several acquisitions, mergers, bankruptcy reorganization filings, construction of new plants, and expansion of capacity at existing plants; older, less efficient manufacturing facilities were temporarily idled, closed, or dismantled.

Domestic housing and construction starts rose early in 2002, but leveled out and declined slightly during some later months of the year. The net result was a small overall gypsum production increase for the year. If, however, the construction industry resumes its decline, U.S. gypsum consumption is likely to decline as well. Demand for gypsum depends principally on the strength of the construction industry—particularly in the United States, where more than 95% of the gypsum consumed is used for wallboard products, building plasters, and the manufacture of portland cement. Road building and repair will continue to spur gypsum consumption in the cement industry. More large wallboard plants under construction and designed to use synthetic gypsum will accelerate substitution significantly as they become operational within the next 2 years.

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves ⁶	Reserve base ⁶
	2001	2002 ^e		
United States	16,300	16,100	700,000	Large
Australia	3,800	3,800		
Canada	8,560	8,600	450,000	Large
China	6,800	6,800		
Egypt	2,000	1,900		
France	4,500	4,500		
India	2,250	2,300		
Iran	11,000	11,000		
Italy	1,300	1,300		
Japan	5,900	5,800		
Mexico	7,500	6,300		
Poland	2,000	1,200		
Spain	7,500	7,500		
Thailand	5,900	6,100		
United Kingdom	1,500	1,500		
Other countries	17,200	18,300		
World total (rounded)	104,000	103,000	Large	Large

Reserves and reserve base are large in major producing countries, but data are not available.

World Resources: Domestic resources are adequate but unevenly distributed. Large imports from Canada augment domestic supplies for wallboard manufacturing on the eastern seaboard of the United States, where there are no significant gypsum deposits. Large imports from Mexico augment domestic supplies for wallboard manufacturing on the U.S. western seaboard. Large deposits occur in the Great Lakes region, midcontinental region, and California. Foreign resources are large and widely distributed; more than 90 countries produce gypsum.

Substitutes: Other construction materials may be substituted for gypsum, especially cement, lime, lumber, masonry, and steel. Gypsum has no practical substitute in the manufacturing of portland cement. Synthetic gypsum generated by various industrial processes, including flue gas desulfurization of stack emissions, is becoming very important as a substitute for mined gypsum in wallboard manufacturing, cement production, and agricultural applications. In 2002, synthetic gypsum accounted for 24% of the total domestic gypsum supply.

^eEstimated.

¹The standard unit used in the U.S. wallboard industry is square feet. Multiply square feet by 0.0929 to convert to square meters.

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

³From domestic crude.

⁴Defined as crude + total synthetic reported used + net import reliance.

⁵Defined as imports - exports + adjustments for industry stock changes.

⁶See Appendix C for definitions.