GYPSUM

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2019, domestic production of crude gypsum was estimated to be 20 million tons with a value of about $160 million. The leading crude gypsum-producing States, in alphabetical order, were estimated to be Iowa, Kansas, Nevada, Oklahoma, and Texas, which together accounted for an estimated 64% of total output. 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 2019, the production capacity of 63 operating gypsum panel manufacturing plants in the United States was about 34.1 billion square feet[1] per year. Total wallboard sales were estimated to be 24.0 billion square feet.

Salient Statistics—United States:	2015	2016	2017	2018	2019[e]
Production:					
Crude	18,800	19,800	20,700	21,100	20,000
Synthetic[2]	15,500	16,700	20,700	16,600	16,000
Calcined[3]	16,500	17,900	17,800	16,900	17,000
Wallboard products sold (million square feet[1])	22,100	24,400	25,000	23,700	24,000
Imports, crude, including anhydrite	4,030	4,340	4,800	5,190	6,100
Exports, crude, not ground or calcined	63	43	36	36	38
Consumption, apparent[4]	38,300	40,800	46,200	42,900	42,000
Price:					
Average crude, free on board (f.o.b.) mine, dollars per metric ton	7.80	8.00	7.50	8.30	8.00
Average calcined, f.o.b. plant, dollars per metric ton	28.00	30.00	30.00	32.00	32.00
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	10	11	10	12	14

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 (2015–18): Mexico, 41%; Spain, 29%; Canada, 28%; and other, 2%.

Tariff: Item	Number	Normal Trade Relations 12–31–19
Gypsum; anhydrite	2520.10.0000	Free.

Depletion Allowance: 14% (Domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: U.S. gypsum production decreased by 5% compared with that of 2018. Apparent consumption decreased slightly compared with that of 2018. U.S. gypsum imports increased by 17% compared with those of 2018. Exports, although very low compared with imports and often subject to wide fluctuations, increased by 6%.

GYPSUM

Demand for gypsum depends principally on construction industry activity, particularly in the United States, where the majority of gypsum consumed is used for building plasters, the manufacture of portland cement, and wallboard products. The construction of wallboard manufacturing plants designed to use synthetic gypsum from coal flue gas desulfurization (FGD) units as feedstock has resulted in less mining of natural gypsum. The availability of inexpensive natural gas, however, has limited the additional construction of FGD units and, therefore, the use of synthetic gypsum in wallboard.

The United States, the world's leading crude gypsum producer, produced an estimated 20 million tons. China and Iran were the second-leading producers each producing an estimated 16 million tons. Increased use of wallboard in Asia, coupled with new gypsum product plants, spurred increased production in that region. As wallboard becomes more widely used in other regions, worldwide production of gypsum is expected to increase.

World Mine Production and Reserves: Reserves for India, Iran, Oman, Pakistan, and Thailand were revised based on Government and other public data.

	Mine production		Reserves[6]
	2018	2019[e]	
United States	21,100	20,000	700,000
Algeria	2,500	2,500	NA
Brazil	3,200	3,200	340,000
Canada	3,000	3,000	450,000
China	15,500	16,000	NA
France	3,000	3,000	NA
Germany	3,200	3,200	NA
India	2,700	2,700	37,000
Iran	16,000	16,000	NA
Japan	4,700	4,700	NA
Mexico	5,400	5,400	NA
Oman	7,000	7,000	NA
Pakistan	2,200	2,200	4,900
Russia	3,800	3,800	NA
Saudi Arabia	3,310	3,300	NA
Spain	7,000	7,000	NA
Thailand	9,300	9,300	1,700
Turkey	10,000	10,000	200,000
Other countries	20,000	21,000	NA
World total (rounded)	143,000	140,000	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; 80 countries were thought to produce gypsum in 2019.

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 FGD 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 2019, synthetic gypsum was estimated to account for about 45% of the total domestic gypsum supply.