

GYPSUM

(Data in thousand metric tons, unless otherwise noted)

Domestic Production and Use: In 1998, crude gypsum output exceeded 19 million tons valued at \$135 million. The top producing States were Oklahoma, Texas, Iowa, Michigan, California, Nevada, and Indiana, which together accounted for 73% of total output. Overall, 29 companies produced gypsum at 60 mines in 19 States, and 10 companies calcined gypsum at 62 plants in 27 States. Most of domestic consumption, which totaled about 31 million tons, was accounted for by manufacturers of wallboard and plaster products. More than 4 million tons for cement production, almost 3 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 remaining uses. Capacity at operating wallboard plants in the United States was 27 billion square feet per year while sales were more than 26 billion square feet, representing capacity utilization greater than 98%.

| Salient Statistics—United States: | 1994 | 1995 | 1996 | 1997 | 1998^e |
|--|-------------|-------------|-------------|-------------|-------------------------|
| Production: Crude | 17,200 | 16,600 | 17,500 | 18,600 | 19,000 |
| Byproduct ¹ | 1,800 | 2,600 | 3,900 | 4,000 | 4,600 |
| Calcined ² | 16,700 | 16,700 | 17,000 | 17,200 | 17,500 |
| Wallboard products (million square feet) | 22,500 | 24,000 | 23,700 | 24,400 | 26,500 |
| Imports, crude, including anhydrite | 8,470 | 8,160 | 8,050 | 8,400 | 8,500 |
| Exports, crude, not ground or calcined | 89 | 79 | 136 | 174 | 200 |
| Consumption, apparent ³ | 27,400 | 27,400 | 29,200 | 30,800 | 31,900 |
| Price: Average crude, f.o.b. mine, dollars per ton | 6.70 | 7.29 | 7.10 | 7.11 | 7.20 |
| Average calcined, f.o.b. plant, dollars per ton | 17.23 | 17.37 | 16.88 | 17.58 | 18.00 |
| Stocks, producer, crude, yearend | 1,200 | 1,100 | 1,200 | 1,200 | 1,200 |
| Employment, mine and calcining plant, number ^e | 6,700 | 6,500 | 6,300 | 6,000 | 6,000 |
| Net import reliance ⁴ as a percent of apparent consumption | 31 | 29 | 27 | 27 | 26 |

Recycling: A relatively small amount of gypsum wallboard is recycled.

Import Sources (1994-97): Canada, 69%; Mexico, 23%; Spain, 5%; and other, 3%.

| Tariff: | Item | Number | Normal Trade Relations (NTR) 12/31/98 | Non-NTR⁵ 12/31/98 |
|----------------|-------------------|---------------|--|---|
| | Gypsum; anhydrite | 2520.10.0000 | Free | Free. |

Depletion Allowance: 14% (Domestic), 14% (Foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Construction of new homes, commercial buildings, and office space continued to stimulate wallboard demand and boosted domestic consumption of gypsum. Some forecasts indicate that gypsum demand in North American markets will remain high for the next few years. This demand, however, will depend principally on the strength of the construction industry, particularly in the United States where more than 90% of the gypsum consumed is used for wallboard products, building plasters, and the manufacture of portland cement. Nevertheless, Federal funding authorized in 1998 for road building and repair through 2003 will help to spur gypsum consumption in the cement industry. Several large wallboard plants under construction and designed to use only byproduct gypsum will accelerate substitution significantly as they become operational within a few years.

World Mine Production, Reserves, and Reserve Base:

| | Mine production | | Reserves ⁶ | Reserve base ⁶ |
|-----------------------|-----------------|-------------------|-----------------------|---------------------------|
| | 1997 | 1998 ^e | | |
| United States | 18,600 | 19,000 | 700,000 | Large |
| Australia | 2,100 | 2,200 | | |
| Canada | 8,500 | 8,500 | 450,000 | Large |
| China | 7,800 | 8,000 | | |
| Egypt | 2,000 | 2,000 | | |
| France | 5,000 | 5,000 | | |
| India | 2,500 | 2,500 | | |
| Iran | 8,500 | 8,500 | | |
| Italy | 2,000 | 2,000 | | |
| Japan | 5,500 | 5,500 | | |
| Mexico | 5,900 | 5,900 | | |
| Poland | 1,000 | 1,000 | | |
| Spain | 7,400 | 7,400 | | |
| Thailand | 8,600 | 8,600 | | |
| United Kingdom | 2,000 | 2,000 | | |
| Other countries | <u>16,600</u> | <u>17,000</u> | | |
| World total (rounded) | 104,000 | 105,000 | Large | Large |

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

World Resources: Domestic resources are adequate, but are unevenly distributed. There are no significant gypsum deposits on the eastern seaboard of the United States, where large imports from Canada augment domestic supplies for wallboard manufacturing in large metropolitan markets. 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. There is no practical substitute for gypsum in portland cement. Byproduct gypsum generated by various industrial processes is becoming more important as a substitute for mined gypsum in wallboard manufacturing, cement production, and agricultural applications.

^eEstimated.

¹Only byproduct reported as sold or used.

²From domestic crude.

³Defined as crude + total reported byproduct use + net import reliance.

⁴Defined as imports - exports + adjustments for industry stock changes.

⁵See Appendix B.

⁶See Appendix D for definitions.