

**STONE (CRUSHED)<sup>1</sup>**(Data in million metric tons, unless otherwise noted)<sup>2</sup>

**Domestic Production and Use:** Crushed stone valued at \$8.6 billion was produced by 1,260 companies operating 3,300 active quarries and distribution yards in 49 States. Leading States, in order of production, were Texas, Florida, Pennsylvania, Missouri, Illinois, Georgia, Ohio, North Carolina, Virginia, and California, together accounting for 51.8% of the total output. Of the total crushed stone produced in 2003, about 71% was limestone and dolomite; 15%, granite; 7%, traprock; and the remaining 7% was shared, in descending order of quantity, by sandstone and quartzite, miscellaneous stone, marble, calcareous marl, slate, volcanic cinder and scoria, and shell. It is estimated that of the 1.49 billion tons of crushed stone consumed in 2003, 35% was for unspecified uses, and 19% was estimated for nonrespondents to the U.S. Geological Survey (USGS) canvasses. Of the remaining 686 million tons reported by uses, 82% was used as construction aggregates mostly for highway and road construction and maintenance; 14% for chemical and metallurgical uses, including cement and lime manufacture; 2% for agricultural uses; and 2% for special and miscellaneous uses and products. To provide a more accurate estimate of the consumption patterns for crushed stone, the "unspecified uses – reported and estimated" as defined in the USGS Minerals Yearbook, are not included in the above percentages.

The estimated output of crushed stone in the 48 conterminous States shipped for consumption in the first 9 months of 2003 was 1.11 billion tons, a 5.4% decrease compared with the same period of 2002. It should be noted that the third quarter shipments for consumption increased by 0.8% compared with the same period of 2002. Additional production information, by quarter for each State, geographic division, and the United States, is reported in the USGS quarterly Mineral Industry Surveys for Crushed Stone and Sand and Gravel.

<b>Salient Statistics—United States:</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003<sup>e</sup></b>
Production	1,530	1,550	1,590	1,520	1,490
Imports for consumption	12	13	14	14	14
Exports	4	4	4	3	3
Consumption, apparent <sup>3</sup>	1,550	1,560	1,600	1,530	1,500
Price, average value, dollars per metric ton	5.35	5.39	5.57	5.71	5.78
Stocks, yearend	NA	NA	NA	NA	NA
Employment, quarry and mill, number <sup>e, 4</sup>	79,000	78,800	79,200	79,000	78,000
Net import reliance <sup>5</sup> as a percentage of apparent consumption	1	1	( <sup>6</sup> )	( <sup>6</sup> )	( <sup>6</sup> )

**Recycling:** Road surfaces made of asphalt and crushed stone and, to a lesser extent, cement concrete surfaces and structures were recycled on a limited but increasing basis in most States.

**Import Sources (1999-2002):** Canada, 53%; Mexico, 33%; The Bahamas, 7%; and other, 7%.

<b>Tariff: Item</b>	<b>Number</b>	<b>Normal Trade Relations 12/31/03</b>
Crushed stone	2517.10.00	Free.

**Depletion Allowance:** (Domestic) 14% for some special uses; 5% if used as ballast, concrete aggregate, riprap, road material, and similar purposes.

**Government Stockpile:** None.

## STONE (CRUSHED)

**Events, Trends, and Issues:** Crushed stone output decreased 2% in 2003 to 1.49 billion tons. It is estimated that in 2004, domestic production and apparent consumption will be about 1.54 billion tons each, a 3.2% increase. Gradual increases in demand for construction aggregates are anticipated after 2003 based on the expected volume of work on the infrastructure that will be financed by the new Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003, the new Flight 100-Century of Aviation Reauthorization Act, and the expanding U.S. economy in general. Long-term projected increases will be influenced by activity in the public and private construction sectors as well as by construction work related to security measures being implemented around the Nation. Crushed stone f.o.b. prices are not expected to increase significantly, but the delivered prices of crushed stone are expected to increase, especially in and near metropolitan areas, mainly because more aggregates are being transported longer distances.

The crushed stone industry continued to be concerned with safety and environmental regulations. Shortages in some urban and industrialized areas were expected to continue to increase, owing to local zoning regulations and land-development alternatives. These issues are expected to continue and to cause crushed stone quarries to relocate away from large-population centers.

### **World Mine Production, Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>7</sup>
	2002	2003 <sup>e</sup>	
United States	1,520	1,490	Adequate except where special types are needed or where local shortages exist.
Other countries <sup>8</sup>	NA	NA	
World total	NA	NA	

**World Resources:** Stone resources of the world are very large. High-purity limestone and dolomite suitable for specialty uses are limited in many geographic areas. The largest resources of high-purity limestone and dolomite in the United States are in the central and eastern parts of the country.

**Substitutes:** Crushed stone substitutes for roadbuilding include sand and gravel and slag. Substitutes for crushed stone used as construction aggregates include sand and gravel, iron and steel slag, sintered or expanded clay or shale, and perlite or vermiculite.

<sup>e</sup>Estimated. NA Not available.

<sup>1</sup>See also Stone (Dimension).

<sup>2</sup>See Appendix A for conversion to short tons.

<sup>3</sup>Data rounded to no more than three significant digits.

<sup>4</sup>Including office staff.

<sup>5</sup>Defined as imports – exports + adjustments for Government and industry stock changes. Changes in stocks were assumed to be zero in the net import reliance and apparent consumption calculations because data on stocks were not available.

<sup>6</sup>Less than ½ unit.

<sup>7</sup>See Appendix C for definitions.

<sup>8</sup>No reliable production information for other countries is available, owing to a wide variation of ways in which countries report their crushed stone production. Some countries do not report production for this mineral commodity. Production information for some countries is available in the country chapters of the USGS Minerals Yearbook.