

STONE (CRUSHED)¹(Data in million metric tons, unless otherwise noted)²

Domestic Production and Use: Crushed stone valued at \$9.1 billion was produced by 1,300 companies operating 3,400 active quarries in 49 States. Leading States, in order of production, were Texas, Florida, Pennsylvania, Missouri, Illinois, Ohio, Georgia, North Carolina, California, and Virginia, together accounting for 52.5% of the total output. It is estimated that about 50% of the 1.59 billion tons of crushed stone produced in 2002 was for unspecified uses, of which 16% was estimated for nonrespondents to the U.S. Geological Survey (USGS) canvasses. Of the remaining 795 million tons reported by uses, 83% was used as construction aggregates mostly for highway and road construction and maintenance; 13% 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" as defined in the USGS Minerals Yearbook, are not included in the above percentages. Of the total crushed stone produced in 2002, about 71% was limestone and dolomite; 15%, granite; 8%, traprock; and the remaining 6%, was shared, in descending order of quantity, by sandstone and quartzite, miscellaneous stone, marble, calcareous marl, slate, volcanic cinder and scoria, and shell.

The estimated output of crushed stone in the 48 conterminous States shipped for consumption in the first 9 months of 2002 was 1.18 billion tons, which represents an increase of 0.6% compared with the same period of 2001. Additional production information, by quarter for each State, geographic division, and the United States, is published in the USGS Mineral Industry Surveys for Crushed Stone and Sand and Gravel (quarterly).

Salient Statistics—United States:	1998	1999	2000	2001	2002^e
Production	1,510	1,530	1,550	1,600	1,590
Imports for consumption	14	12	13	13	14
Exports	4	4	4	4	4
Consumption, apparent ³	1,520	1,550	1,560	1,610	1,600
Price, average value, dollars per metric ton	5.39	5.35	5.39	5.57	5.72
Stocks, yearend	NA	NA	NA	NA	NA
Employment, quarry and mill, number ^{e 4}	78,500	79,000	78,800	79,200	79,000
Net import reliance ⁵ as a percentage of apparent consumption	1	1	1	(⁶)	(⁶)

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 (1998-2001): Canada, 52%; Mexico, 34%; The Bahamas, 8%; and other, 6%.

Tariff: Item	Number	Normal Trade Relations 12/31/02
Crushed stone	2517.10.00	Free.

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

Government Stockpile: None.

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Events, Trends, and Issues: Crushed stone output decreased 1.2% in 2002 to 1.59 billion tons. It is estimated that in 2003, domestic production and apparent consumption will be about 1.62 billion tons each, a 2.5% increase. The Transportation Equity Act for the 21st Century (Public Law 105-178) appropriated \$205 billion through 2003, a 44% increase compared to the previous Intermodal Surface Transportation Efficiency Act legislation. The law guarantees that \$165 billion will be obligated for highways and \$35 billion for transit work. The guaranteed amounts are linked to actual Highway Trust Fund receipts, and can only be used for highways and highway safety programs. The States are also guaranteed a return of at least 90.5% of their contributions to the Highway Trust Fund. The legislation also established timetables for determining if States are complying with the U.S. Environmental Protection Agency's new air quality standards for particulate matter, also known as PM 2.5. The Aviation Investment and Reform Act for the 21st Century (Public Law 106-181), signed into law on April 5, 2000, is a 3-year reauthorization of Federal Aviation Administration programs. The law released an estimated \$3.3 billion in fiscal year 2002, and will release \$3.4 billion in fiscal year 2003, the second and third years of the program.

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

World Mine Production, Reserves, and Reserve Base:

	Mine production		Reserves and reserve base ⁷
	2001	2002 ^e	
United States	1,600	1,590	Adequate except where special types are needed or where local shortages exist.
Other countries ⁸	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, slag, sintered or expanded clay or shale, and perlite or vermiculite.

^eEstimated. NA Not available.

¹See also Stone (Dimension).

²See Appendix A for conversion to short tons.

³Data rounded to no more than three significant digits.

⁴Including office staff.

⁵Defined 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.

⁶Less than ½ unit.

⁷See Appendix C for definitions.

⁸No 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.