## STONE (CRUSHED) ${ }^{1}$

(Data in million metric tons unless otherwise noted) ${ }^{2}$
Domestic Production and Use: Crushed stone valued at $\$ 11$ billion was produced by 1,600 companies operating 4,000 quarries, 86 underground mines, and 311 sales/distribution yards in 50 States. Leading States, in descending order of production, were Texas, Pennsylvania, Missouri, Illinois, California, Florida, Georgia, Virginia, Ohio, and Kentucky, together accounting for $50 \%$ of the total crushed stone output. Of the total crushed stone produced in 2009, about $70 \%$ was limestone and dolomite; $14 \%$, granite; $7 \%$, traprock; and the remaining $9 \%$ was divided, in descending order of tonnage, among miscellaneous stone, sandstone and quartzite, marble, slate, calcareous marl, volcanic cinder and scoria, and shell. It is estimated that of the 1.11 billion tons of crushed stone consumed in the United States in 2009, $49 \%$ was reported by use, $31 \%$ was reported for unspecified uses, and $20 \%$ of the total consumed was estimated for nonrespondents to the U.S. Geological Survey (USGS) canvasses. Of the 544 million tons reported by use, $83 \%$ was used as construction aggregates, mostly for road construction and maintenance; 11\%, for cement manufacturing; $2 \%$, for lime manufacturing; $2 \%$, 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 6 months of 2009 was 487 million tons, a $26 \%$ decrease compared with that of the same period of 2008. Second quarter shipments for consumption also decreased by $26 \%$ compared with those of the same period of 2008. 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.

| Salient Statistics-United States: | $\underline{2005}$ | $\underline{2006}$ | $\underline{2007}$ | $\underline{2008}$ | $\underline{2009}{ }^{\text {e }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Production | 1,700 | 1,780 | 1,650 | 1,440 | 1,110 |
| Imports for consumption | 21 | 20 | 20 | 21 | 21 |
| Exports | 1 | 1 | 1 | 1 | 1 |
| Consumption, apparent ${ }^{3}$ | 1,730 | 1,810 | 1,690 | 1,490 | 1,160 |
| Price, average value, dollars per metric ton | 7.29 | 8.03 | 8.55 | 9.31 | 9.71 |
| Stocks, yearend | NA | NA | NA | NA | NA |
| Employment, quarry and mill, numbere ${ }^{\text {e }, 4}$ | 81,000 | 82,600 | 81,900 | 81,000 | 81,000 |
| Net import reliance ${ }^{5}$ as a percentage of apparent consumption | 1 | 1 | 1 | 1 | 2 |

Recycling: Road surfaces made of asphalt and crushed stone and, to a lesser extent, cement concrete surface layers and structures, were recycled on a limited but increasing basis in most States. Asphalt road surfaces were recycled in 48 States and Puerto Rico, and concrete was recycled by 47 States. The amount of material reported to be recycled increased by $45 \%$ in 2009 and increased by $31 \%$ in 2008 when compared with that of the previous year.

Import Sources (2005-2008): Canada, 43\%; Mexico, 38\%; The Bahamas, 17\%; and other, 2\%.

| Tariff: Item | Number | Normal Trade Relations |
| :--- | :---: | :---: |
| Crushed stone | 2517.10 .00 | $\frac{12-31-09}{\text { Free. }}$ |

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 production was about 1.11 billion tons in 2009, a decrease of $23 \%$ compared with that of 2008. It is estimated that in 2009, apparent consumption will also decrease by $22 \%$ to about 1.16 billion tons. Demand for construction aggregates is anticipated to decrease for 2010 based on the slowdown in activity that some of the principal construction markets have experienced over the last 3 years. Long-term projected increases in construction aggregates demand 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. The underlying factors that would support a rise in f.o.b. and delivered prices of crushed stone are expected to be present in 2010, especially in and near metropolitan areas.

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

## World Mine Production and Reserves:

|  | Mine production |  | Reserves ${ }^{6}$ |
| :---: | :---: | :---: | :---: |
|  | $\underline{2008}$ | $2009{ }^{\text {e }}$ |  |
| United States | 1,440 | 1,110 | Adequate except where special |
| Other countries ${ }^{7}$ | NA | NA | types are needed or where |
| World total | NA | NA | local shortages exist. |

World Resources: Stone resources of the world are very large. Supply of high-purity limestone and dolomite suitable for specialty uses is 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 iron and steel 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.

[^0]
[^0]:    ${ }^{e}$ Estimated. NA Not available.
    ${ }^{1}$ See also Stone (Dimension).
    ${ }^{2}$ See Appendix A for conversion to short tons.
    ${ }^{3}$ Includes recycled material.
    ${ }^{4}$ Including office staff.
    ${ }^{5}$ 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.
    ${ }^{6}$ See Appendix C for definitions. Reserve base estimates were discontinued in 2009; see Introduction.
    ${ }^{7}$ Reliable production information is not available for other countries owing to a wide variety 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.

