

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

**Domestic Production and Use:** In 2016, 1.48 billion tons of crushed stone valued at more than \$16.2 billion was produced by 1,430 companies operating 3,700 quarries, 82 underground mines, and 187 sales and distribution yards in 50 States. Leading States were, in descending order of production, Texas, Pennsylvania, Florida, Missouri, Ohio, North Carolina, Georgia, Indiana, Illinois, and New York, which together accounted for more than one-half of the total crushed stone output. Of the total domestic crushed stone produced in 2016, about 70% was limestone and dolomite; 13%, granite; 6%, traprock; 5%, miscellaneous stone; 4%, sandstone and quartzite; and the remaining 2% was divided, in descending order of tonnage, among marble, volcanic cinder and scoria, calcareous marl, slate, and shell. It is estimated that, of the 1.54 billion tons of crushed stone consumed in the United States in 2016, 76% was used as construction material, mostly for road construction and maintenance; 11% for cement manufacturing; 7% for lime manufacturing; 4% for other chemical, special, and miscellaneous uses and products; and 2% for agricultural uses.

The estimated output of crushed stone in the 48 conterminous States shipped for consumption in the first 6 months of 2016 was 648 million tons, an increase of 11% compared with that of the same period of 2015. Second quarter shipments for consumption increased by 6% compared with those of the same period of 2015. Additional production information by quarter for each State, geographic division, and the United States is reported in the U.S. Geological Survey quarterly Mineral Industry Surveys for Crushed Stone and Sand and Gravel (Construction).

| <b>Salient Statistics—United States:</b>                                 | <b>2012</b> | <b>2013</b>      | <b>2014</b>      | <b>2015</b>      | <b>2016<sup>e</sup></b> |
|--|-------------|------------------|------------------|------------------|-------------------------|
| Production   | 1,180       | 1,180            | 1,250            | 1,330            | 1,480                   |
| Recycled material  | 31          | 41               | 42               | 42               | 44                      |
| Imports for consumption  | 15          | 18               | 20               | 22               | 21                      |
| Exports  | 1           | ( <sup>3</sup> ) | ( <sup>3</sup> ) | ( <sup>3</sup> ) | ( <sup>3</sup> )        |
| Consumption, apparent  | 1,200       | 1,240            | 1,310            | 1,400            | 1,540                   |
| Price, average value, dollars per metric ton                             | 9.73        | 9.89             | 10.15            | 10.57            | 10.98                   |
| Employment, quarry and mill, number <sup>4</sup>                         | 66,200      | 65,900           | 65,600           | 67,100           | 67,300                  |
| Net import reliance <sup>5</sup> as a percentage of apparent consumption | 1           | 1                | 2                | 2                | 1                       |

**Recycling:** Road surfaces made of asphalt and crushed stone and portland cement concrete surface layers and structures were recycled on a limited but increasing basis in most States. Asphalt road surfaces and concrete were recycled in all 50 States. The amount of material reported to be recycled increased by almost 4% in 2016 compared with that of the previous year.

**Import Sources (2012–2015):** Mexico, 73%; The Bahamas, 15%; Canada, 6%; Honduras, 5%; and other, 1%.

| <b>Tariff: Item</b> | <b>Number</b> | <b>Normal Trade Relations</b> |
|---------------------|---------------|-------------------------------|
| Crushed stone       | 2517.10.0000  | <u>12–31–16</u><br>Free.      |

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

**Government Stockpile:** None.

## STONE (CRUSHED)

**Events, Trends, and Issues:** Crushed stone production was about 1.48 billion tons in 2016, an increase of 11% compared with that of 2015. Apparent consumption also increased, to about 1.54 billion tons. Consumption of crushed stone was higher in 2016 because of increased consumption during every quarter since the second quarter of 2013, with an average increase of 7% over the same period of the previous year. With significantly stronger construction activity across the country in 2016 and recovery in the private sector and residential construction experiencing a level of growth not seen since late 2005, consumption of construction aggregates is likely to continue to increase. It is expected that the increased consumption in 2016 from that in 2015 will again reach or exceed the historical annual average of the past 50 years, which was a 2% to 4% increase per year.

### World Mine Production and Reserves:

|                              | Mine production |                   | Reserves <sup>6</sup>   |
|------------------------------|-----------------|-------------------|---|
|                              | 2015            | 2016 <sup>e</sup> |   |
| United States                | 1,330           | 1,480             | Adequate, except where special types are needed or where local shortages exist. |
| Other countries <sup>7</sup> | NA              | NA                |   |
| World total                  | NA              | NA                |   |

**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 construction sand and gravel, iron and steel slag, sintered or expanded clay or shale, 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>Less than ½ unit.

<sup>4</sup>Including office staff. Source: Mine Safety and Health Administration.

<sup>5</sup>Defined as imports – exports.

<sup>6</sup>See [Appendix C](#) for resource and reserve definitions and information concerning data sources.

<sup>7</sup>Consistent 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.