

STONE (CRUSHED)¹

(Data in million metric tons unless otherwise noted)

Domestic Production and Use: In 2020, 1.46 billion tons of crushed stone valued at more than \$17.8 billion was produced by an estimated 1,410 companies operating 3,440 quarries and 180 sales and (or) distribution yards in 50 States. Leading States were, in descending order of production, Texas, Missouri, Florida, Pennsylvania, Ohio, Georgia, Virginia, Illinois, North Carolina, and Kentucky, which combined accounted for more than one-half of the total crushed stone output. Of the total domestic crushed stone produced in 2020, about 70% was limestone and dolomite; 15%, granite; 6%, traprock; 5%, miscellaneous stone; 3%, sandstone and quartzite; and the remaining 1% was divided, in descending order of tonnage, among marble, volcanic cinder and scoria, calcareous marl, slate, and shell. It is estimated that of the 1.5 billion tons of crushed stone consumed in the United States in 2020, 72% was used as construction aggregate, mostly for road construction and maintenance; 16% for cement manufacturing; 8% for lime manufacturing; 2% for agricultural uses; and the remainder for other chemical, special, and miscellaneous uses and products.

The estimated output of crushed stone in the United States shipped for consumption in the first 9 months of 2020 was 1.10 billion tons, a decrease of 3% compared with that of the same period of 2019. Third quarter shipments for consumption decreased by 6% compared with those of the same period of 2019. 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.

Salient Statistics—United States:	2016	2017	2018	2019	2020^e
Production	1,360	1,370	1,390	1,490	1,460
Recycled material	49	43	38	38	38
Imports for consumption	20	19	21	24	21
Exports	1	1	(²)	(²)	(²)
Consumption, apparent ³	1,430	1,430	1,450	1,550	1,520
Price, average value, dollars per metric ton	11.06	11.36	11.64	11.96	12.19
Employment, quarry and mill, number ⁴	68,100	68,600	68,500	69,000	67,000
Net import reliance ⁵ as a percentage of apparent consumption	1	1	1	2	1

Recycling: Road surfaces made of asphalt concrete and portland cement concrete surface layers, which contain crushed stone aggregate, were recycled on a limited but increasing basis in most States. In 2020, asphalt and portland cement concrete road surfaces were recycled in all 50 States.

Import Sources (2016–19): Mexico, 56%; Canada, 27%; The Bahamas, 11%; Honduras, 5%; and Jamaica, 1%.

Tariff:	Item	Number	Normal Trade Relations 12–31–20
Chalk:			
	Crude	2509.00.1000	Free.
	Other	2509.00.2000	Free.
	Limestone, except pebbles and gravel	2517.10.0020	Free.
	Crushed or broken stone	2517.10.0055	Free.
	Marble granules, chippings and powder	2517.41.0000	Free.
	Stone granules, chippings and powders	2517.49.0000	Free.
	Limestone flux; limestone and other calcareous stone	2521.00.0000	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.

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Events, Trends, and Issues: Crushed stone production was about 1.46 billion tons in 2020, a slight decrease compared with 1.49 billion tons in 2019. Apparent consumption also decreased slightly to about 1.52 billion tons. Consumption of crushed stone decreased in 2020 because of measures instituted to mitigate the spread of the global COVID-19 pandemic that caused disruptions in the mining and construction industries. Usually commercial and heavy industrial construction activity, infrastructure funding, new single-family housing unit starts, and weather, affect growth in crushed stone production and consumption. Long-term increases in construction aggregates demand are 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 prices of crushed stone are expected to be present in 2021, 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 be located away from large population centers.

World Mine Production and Reserves:

	Mine production		Reserves⁶
	<u>2019</u>	<u>2020^e</u>	
United States	1,490	1,460	Adequate, except where special types are needed or where local shortages exist.
Other countries ⁷	<u>NA</u>	<u>NA</u>	
World total	NA	NA	

World Resources:⁶ Stone resources are plentiful throughout the world. 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. Increasingly, recycled asphalt and portland cement concretes are being substituted for virgin aggregate, although the percentage of total aggregate supplied by recycled materials remained very small in 2020.

^eEstimated. NA Not available.

¹See also Sand and Gravel (Construction) and Stone (Dimension).

²Less than ½ unit.

³Defined as production + recycled material + imports – exports.

⁴Including office staff. Source: Mine Safety and Health Administration.

⁵Defined as imports – exports.

⁶See Appendix C for resource and reserve definitions and information concerning data sources.

⁷Consistent production information is not available for other countries owing to the 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 U.S. Geological Survey Minerals Yearbook, volume III, Area Reports—International.