

PERLITE

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2017, domestic sold and used processed crude perlite was estimated to be 455,000 tons with a value of \$29.1 million. Crude ore production was from seven mines operated by six companies in five Western States. New Mexico continued to be the leading producing State. Processed crude perlite was expanded at 46 plants in 28 States. Domestic apparent consumption was 590,000 tons. The applications for expanded perlite were building construction products, 53%; horticultural aggregate, 15%; fillers, 15%; filter aid, 9%; and other, 8%. Other applications included specialty insulation and miscellaneous uses.

Salient Statistics—United States:	2013	2014	2015	2016	2017^e
Mine production, crude ore	471	462	488	513	520
Sold or used, processed crude perlite	419	462	444	437	455
Imports for consumption ¹	156	144	143	188	160
Exports ¹	52	36	30	21	25
Consumption, apparent ²	523	570	557	604	590
Price, average value, dollars per ton, f.o.b. mine	57	55	60	64	64
Employment, mine and mill, number	117	119	142	135	140
Net import reliance ³ as a percentage of apparent consumption	20	19	20	28	23

Recycling: Not available.

Import Sources (2013–16): Greece, 95%; Mexico, 2%; Turkey, 2%; and other, 1%.

Tariff: Item	Number	Normal Trade Relations 12–31–17
Vermiculite, perlite and chlorites, unexpanded	2530.10.0000	Free.

Depletion Allowance: 10% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Perlite is a siliceous volcanic glass that expands up to 20 times its original volume when rapidly heated. Expanded perlite is used to provide moisture retention and aeration when added to soil. Construction applications for expanded perlite are numerous because it is lightweight, fire resistant, and an excellent insulator. Novel and small markets for perlite have increased during the past 10 years; environmental remediation has become an increasing market for perlite. During the final quarter of 2016 and throughout 2017, a new perlite deposit in Nevada was being actively explored and developed as a potential supplier of crude perlite ore for industrial and household applications.

Domestic perlite mining generally takes place in remote areas, and its environmental impact is not severe. The mineral fines, overburden, and reject ore produced during ore mining and processing are used to reclaim the mined-out areas, and, therefore, little waste remains. Airborne dust is captured by baghouses, and virtually no runoff contributes to water pollution.

Based on estimated world production for 2017, the world's leading producers were, in descending order of production, China, Greece, Turkey, and the United States, with about 35%, 30%, 20%, and 10%, respectively, of world production. Although China was the leading producer, most of its perlite production was thought to be consumed internally. Greece and Turkey remained the leading exporters of perlite.

World Processed Perlite Production and Reserves: Reserves for Greece were revised based on information from official Government sources.

	Production		Reserves ⁴
	2016 ^e	2017 ^e	
United States	<u>513</u>	<u>520</u>	50,000
China	1,800	1,800	NA
Greece	1,490	1,550	120,000
Hungary	30	50	28,000
Iran	60	60	NA
Mexico	28	40	NA
Turkey	950	1,000	57,000
Other countries	<u>115</u>	<u>120</u>	<u>NA</u>
World total (rounded)	5,000	5,100	NA

World Resources: Insufficient information is available to make reliable estimates of resources in perlite-producing countries.

Substitutes: In construction applications, diatomite, expanded clay and shale, pumice, and slag can be substituted for perlite. For horticultural uses, vermiculite, coco coir, wood pulp, and pumice are alternative soil additives and are sometimes used in conjunction with perlite.

^eEstimated. NA Not available.

¹Exports and imports were estimated by the U.S. Geological Survey from U.S. Census Bureau combined data for vermiculite, perlite, and chlorites, unexpanded.

²Defined as sold or used processed perlite + imports – exports.

³Defined as imports – exports.

⁴See [Appendix C](#) for resource and reserve definitions and information concerning data sources.

⁵U.S. mine production of crude ore.