

## PERLITE

(Data in thousand metric tons unless otherwise specified)

**Domestic Production and Use:** In 2024, the quantity of domestic processed crude perlite sold and used was estimated to be 440,000 tons with a value of \$33 million. Crude ore production was from nine mines operated by six companies in six Western States. New Mexico continued to be the leading producing State. Domestic apparent consumption of crude perlite was estimated to be 590,000 tons. Processed crude perlite was expanded at 53 plants in 29 States. The applications for expanded perlite were building construction products, 47%; horticultural aggregate, 16%; filter aids, 14%; and other, 23%. Other applications included fillers, which had been a leading end use in prior years but is withheld to avoid disclosing company proprietary data, as well as specialty insulation and miscellaneous uses.

<b>Salient Statistics—United States:</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024<sup>e</sup></b>
Mine production, crude ore	853	879	672	654	690
Sold or used, processed crude perlite <sup>1</sup>	501	491	442	410	440
Imports for consumption <sup>2</sup>	160	170	240	140	180
Exports <sup>2</sup>	25	27	22	18	27
Consumption, apparent <sup>3</sup>	640	630	660	530	590
Price, average value, free on board mine, dollars per metric ton	61	64	69	74	75
Employment, mine and mill, number	140	150	150	150	150
Net import reliance <sup>4</sup> as a percentage of apparent consumption	21	23	33	23	26

**Recycling:** Not available.

**Import Sources (2020–23):** Greece, 93%; China, 4%; and other, 3%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12–31–24</b>
	Vermiculite, perlite, and chlorites, unexpanded	2530.10.0000	Free.

**Depletion Allowance:** 10% (domestic and foreign).

**Government Stockpile:** None.

**Events, Trends, and Issues:** Perlite is a siliceous volcanic glass that expands up to 20 times its original volume when rapidly heated. Construction applications for expanded perlite are numerous because it is fire resistant, an excellent insulator, and lightweight. In horticultural uses, expanded perlite is used to provide moisture retention and aeration without compaction when added to soil. Horticultural perlite is useful to both commercial growers and hobby gardeners. Owing primarily to cost, some commercial greenhouse growers in the United States have recently switched to a wood fiber material instead of perlite. Perlite, however, remained a preferred soil amendment for segments of greenhouse growers because it does not degrade or compact over lengthy growing times and is inert. Perlite has replaced vermiculite in some horticulture products owing to difficulties in acquiring vermiculite due to low production and prior transportation issues. Cosmetics, environmental remediation, and personal care products have become increasing markets for perlite.

In April 2024, a leading global producer of industrial minerals headquartered in France entered into negotiations with a Pittsburgh, PA, based global company to acquire its European diatomite and perlite business. The acquisition, which consists of three mining and industrial assets in France and Italy, is expected to be completed by the end of 2024.

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The amount of processed perlite sold or used from U.S. mines increased in 2024 compared with the amount in 2023. Imports also increased from those in 2023, and apparent consumption increased to about 590,000 tons. Constructed-related uses have consistently been the leading use of perlite. The value of total construction put in place in the United States increased by about 8% during the first 8 months of 2024 compared with that in the same period in 2023. However, the increase of value was affected by increases in the price of construction materials. During the first 9 months of 2024, housing starts in the United States decreased by about 3% compared to those in the same period in 2023.

The world's leading perlite producers in 2024 were, in descending order of quantity, China, 35%; Turkey, 28%; Greece, 20%; and the United States, 10%. Although China was the leading producer, most of its perlite production was estimated to be consumed internally. Greece and Turkey remained the world's leading exporters of perlite.

### World Mine Production and Reserves:

	Production <sup>6</sup>		Reserves <sup>5</sup>
	2023	2024	
United States <sup>1</sup>	<sup>6,7</sup> 410	<sup>6</sup> 440	50,000
Argentina	32	30	NA
Armenia	29	30	NA
China	1,500	1,500	32,000
Georgia	38	40	NA
Greece	840	850	180,000
Hungary <sup>8</sup>	77	80	NA
Mexico <sup>8</sup>	29	30	NA
New Zealand	18	20	NA
Philippines	<sup>7</sup> 18	20	NA
Slovakia	39	40	30,000
South Africa	11	10	NA
Turkey <sup>8</sup>	<sup>7</sup> 1,170	1,200	NA
Other countries	19	20	NA
World total (rounded)	4,230	4,300	NA

**World Resources:**<sup>5</sup> Perlite occurrences in Arizona, California, Idaho, Nevada, New Mexico, and Oregon may contain large resources. Significant deposits have been reported in China, Greece, Turkey, and a few other countries. Available information was insufficient to make reliable estimates of resources in many perlite-producing countries.

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

<sup>6</sup>Estimated. NA Not available.

<sup>1</sup>Beginning in 2023, production data were rounded to two significant digits to avoid disclosing proprietary information.

<sup>2</sup>Exports and imports were estimated by the U.S. Geological Survey from U.S. Census Bureau combined data for vermiculite, perlite, and chlorites, unexpanded. Data are rounded to two significant digits.

<sup>3</sup>Defined as processed crude perlite sold and used + imports – exports. Data are rounded to two significant digits.

<sup>4</sup>Defined as imports – exports.

<sup>5</sup>See Appendix C for resource and reserve definitions and information concerning data sources.

<sup>6</sup>Processed ore sold and used by producers.

<sup>7</sup>Reported.

<sup>8</sup>Crude ore.