PUMICE AND PUMICITE

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: In 2021, 10 operations in five States produced pumice and pumicite. Estimated production[1] was 580,000 tons with an estimated processed value of about $18.6 million, free on board (f.o.b.) plant. That represented a slight increase in quantity and a 4% increase in value from the 2020 reported production of 578,000 tons valued at $17.9 million. Pumice and pumicite were mined in California, Idaho, Kansas, New Mexico, and Oregon. The porous, lightweight properties of pumice are well suited for its main uses. Mined pumice was used in the production of abrasives, concrete admixtures and aggregates, lightweight building blocks, horticultural purposes, and other uses, including absorbent, filtration, laundry stone washing, and road use.

Salient Statistics—United States:	2017	2018	2019	2020	2021[e]
Production, mine[1]	383	496	565	578	580
Imports for consumption	166	159	136	90	140
Exports[e]	12	11	11	8	11
Consumption, apparent[2]	537	644	690	660	710
Price, average value, f.o.b. mine or mill, dollars per ton	39	32	28	31	32
Employment, mine and mill, number	140	140	140	140	140
Net import reliance[3] as a percentage of apparent consumption	29	23	18	12	18

Recycling: Little to no known recycling.

Import Sources (2017–20): Greece, 92%; Iceland, 6%; and Mexico, 2%.

Tariff: Item	Number	Normal Trade Relations 12–31–21
Pumice, crude or in irregular pieces, including crushed	2513.10.0010	Free.
Pumice, other	2513.10.0080	Free.

Depletion Allowance: 5% (domestic and foreign).

Government Stockpile: None.

Events, Trends, and Issues: The amount of domestically produced pumice and pumicite sold or used in 2021 was estimated to be slightly more than that in 2020. Imports and exports were estimated to have increased compared with those of 2020. Almost all imported pumice originated from Greece in 2021 and primarily supplied markets in the eastern and gulf coast regions of the United States.

Pumice and pumicite are plentiful in the Western United States, but legal challenges and public land designations could limit access to known deposits. Pumice and pumicite production are sensitive to mining and transportation costs. Although unlikely in the short term, an increase in fuel prices would likely lead to increases in production costs, making imports and competing materials attractive substitutes for domestic products.

All known domestic pumice and pumicite mining in 2021 was accomplished through open pit methods, generally in remote areas away from major population centers. Although the generation and disposal of reject fines in mining and milling may result in local dust issues at some operations, such environmental impacts are thought to be restricted to relatively small geographic areas.

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World production of pumice and related material was estimated to be 17 million tons in 2021, which was 10% more than that of 2020. Turkey, followed by Uganda, was the leading global producer of pumice and pumicite. Pumice is used more extensively as a building material outside the United States, which explained the large global production of pumice relative to that of the United States. In Europe, basic home construction uses stone and concrete as the preferred building materials. Prefabricated lightweight concrete walls, which may contain pumice as lightweight aggregate, are often produced and shipped to construction locations. Because of their cementitious properties, light weight, and strength, pumice and pumicite perform well in European-style construction.

World Mine Production and Reserves:

	Mine production		Reserves[4]
	2020	2021[e]	
United States[1]	578	580	Large in the United States.
Algeria[5]	900	900	Quantitative estimates of reserves
Cameroon[5]	300	110	for most countries are not available.
Chile[5]	680	700	
Ecuador[5]	800	800	
Ethiopia	510	500	
France[5]	280	300	
Greece[5]	1,020	1,000	
Guadeloupe	200	200	
Guatemala	570	600	
Indonesia	200	200	
Jordan	900	900	
New Zealand	220	220	
Saudi Arabia[5]	560	560	
Spain	290	300	
Syria[5]	200	200	
Tanzania	260	160	
Turkey	5,400	7,000	
Uganda	960	1,100	
Other countries[5]	570	570	
World total (rounded)	15,400	17,000	

World Resources:[4] The identified U.S. resources of pumice and pumicite, estimated to be more than 25 million tons, are concentrated in the Western States. The estimated total resources (identified and undiscovered) in the Western and Great Plains States are at least 250 million tons and may total more than 1 billion tons. Large resources of pumice and pumicite have been identified on all continents.

Substitutes: The costs of transportation determine the maximum economic distance pumice and pumicite can be shipped and still remain competitive with alternative materials. Competitive materials that may be substituted for pumice and pumicite include crushed aggregates, diatomite, expanded shale and clay, and vermiculite.

[e]Estimated.

[1]Quantity sold and used by producers.

[2]Defined as production + imports – exports.

[3]Defined as imports – exports.

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

[5]Includes pozzolan and (or) volcanic tuff.