

PERLITE

By Wallace P. Bolen

The perlite industry continued to grow in 1995. For the second straight year, a record was set as perlite producers sold or used 700,000 metric tons of processed perlite. The amount and value of expanded perlite sold or used in the United States again set records. (*See table 1.*)

Production

U.S. production of processed perlite increased 8.7%, but the value of the processed perlite grew only slightly, according to the U. S. Geological Survey (USGS). Expanded perlite, sold or used by domestic producers, increased 2.5%, to 652,000 metric tons, and the associated value increased 3.3% compared with 1994. Construction uses of expanded perlite, mostly formed products, accounted for over 69% of total domestic sales in 1995.

Domestic production data for perlite are developed by the USGS from two voluntary annual surveys, one for domestic mine operations and the other for expanding plants. All of the processed perlite included in table 1 was produced by eight mines operated by six companies in 1995. All of the mining operations responded to the survey request. Three companies reported three mines idle, bringing the total to eight companies with active or inactive perlite mines. Of the 70 expanding plants canvassed, 62 were active; 54 plants, or 77% responded, representing about 82% of the total expanded perlite sold or used shown in table 1. The perlite mined came from four Western States with New Mexico operations accounting for the vast majority of the total tonnage mined. The remaining tonnage came from Arizona, California, and Nevada. Ore producers were Harborlite Corp. in Arizona and New Mexico; American Perlite Co. in California; Wilkins Mining and Trucking Co. and Eagle-Picher Minerals Inc. in Nevada; and Dicaperl Corp. and USG Corp. in New Mexico. The top eight producers of expanded perlite, each with production over 25,000 tons annually, accounted for 86% of expanded perlite sold or used in the United States in 1995. The remaining 14% was sold or used by 26 companies.

The former Cal Shake, Inc., was purchased by a group of its managers. The new company will be known as California Shake Corp., but the physical location and facilities will remain the same, in Irwindale, Los Angeles County, CA.

National Gypsum Co. announced the decision to permanently close down its long idled expander at Fort Dodge, IA, in their gypsum wallboard plant. National Gypsum has one remaining perlite expander at its Shoals, IN, wallboard plant.

There was just one new expander opened in 1995. Sun Gro Horticulture began operations in Quincy, MI, producing a

relatively high volume of horticultural aggregate.

Orelite of Morganton, NC, has apparently closed down its expanding operation. All attempts to reach the company, both through the mail and over the phone, were unsuccessful. Orelite was only in operation for 2 or 3 years.

Consumption

Domestic apparent consumption is defined as U.S. processed perlite sold and used plus imports minus exports. Domestic apparent consumption of processed perlite in 1995 was 744,000 metric tons, an increase of 8.8% from that of 1994. Consumption of expanded perlite for construction-related uses, the major market for expanded material, decreased slightly to 447,000 tons. Expanded perlite used as filter aid, fillers, and in agricultural markets increased nearly 12% to 188,000 tons. Leading States, in descending order of expanded perlite sold and used, were Georgia, Mississippi, Illinois, Pennsylvania, Alabama, California, Florida, and Virginia. (*See tables 2 and 3.*)

Prices

Processed perlite sold at an average value of \$27.36 per ton. Perlite consumed by expanding plants operated by the mining companies was valued by the mining companies at \$31.02 per ton. The average price for all perlite sold or used by miners was \$27.93 per ton. The average price of expanded perlite was \$194 per ton but there was a wide range in quoted prices from less than \$100 to \$1,000 per ton.

The average prices for a ton of expanded perlite, by use, in descending order, were low-temperature insulation, \$535; cavity-fill insulation, \$319; horticultural aggregate, \$299; fillers, \$289; filter aid, \$278; oil and water absorbent, \$263; high-temperature insulation, \$249; concrete aggregate, \$233; plaster aggregate, \$215; miscellaneous uses, \$209; acoustic tile, \$155; and roof insulation board, \$131.

Foreign Trade

Perlite exports, primarily to Canada, were estimated to be 40,000 tons. Imports of processed perlite, mainly from Greece, increased about 20% to 84,000 tons.

World Review

The United States was estimated to be the largest producer and consumer of perlite, both crude and expanded. Other leading countries, in descending order of production of

processed (unexpanded) perlite, were Greece, Japan, and Turkey. Thirteen countries produced a total of 1.55 million tons of processed perlite. However, due to a lack of reliable figures, this total does not include several producing countries. (*See table 4.*)

Outlook

Unless there is change in what has been a generally robust construction market, perlite sales are expected to see modest growth in 1996. It is anticipated that the non-construction markets for perlite will see smaller but still positive growth.

TABLE 1
MINED, PROCESSED, EXPANDED, AND SOLD AND USED BY PRODUCERS IN THE UNITED STATES 1/

(Thousand metric tons and thousand dollars)

Year	Perlite mined 2/	Processed perlite				Expanded perlite			
		Sold to expanders		Used at own plant to make expanded material		Total quantity sold and used	Quantity produced	Sold and used	
		Quantity	Value	Quantity	Value			Quantity	Value
1991	711	421	12,100	93	2,940	514	459	449	102,000
1992	762	422	11,700	118	3,490	541	551	550	113,000
1993	691	453	13,800	116	3,680	569	566	562	111,000
1994	664	531	15,900	114	3,440	644	636	636	123,000
1995	813	592	16,200	108	3,350	700	657	652	127,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Crude ore mined and stockpiled for processing.

TABLE 2
EXPANDED PERLITE PRODUCED AND SOLD OR USED BY PRODUCERS IN THE UNITED STATES, BY STATE 1/

State	1994				1995			
	Quantity produced (metric tons)	Sold and used		Average value per ton 2/	Quantity produced (metric tons)	Sold and used		Average value per ton 2/
		Quantity (metric tons)	Value (thousands)			Quantity (metric tons)	Value (thousands)	
California	42,700	42,900	\$10,400	\$242	40,900	40,400	\$10,200	\$254
Florida	39,300	38,700	9,120	235	37,500	36,800	8,580	233
Michigan	W	W	W	W	31,600	31,600	6,050	191
Mississippi	74,800	74,800	7,280	100	81,500	81,500	8,400	103
Pennsylvania	46,900	46,900	8,610	184	51,900	51,900	9,610	185
Texas	16,300	16,300	4,670	286	16,600	16,100	4,710	292
Other 3/	416,000	416,000	83,400	200	397,000	394,000	79,100	200
Total	636,000	636,000	123,000	194	657,000	652,000	127,000	194

W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Average value based on unrounded data and rounded to nearest dollar.

3/ Includes Alabama, Arizona, Arkansas (1994), Colorado, Georgia, Idaho (1994), Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Michigan (1994), Minnesota, Missouri, Nevada, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Tennessee, Utah, Virginia, Wisconsin, and Wyoming.

TABLE 3
EXPANDED PERLITE SOLD AND USED BY PRODUCERS IN THE UNITED STATES,
BY USE 1/

(Metric tons)

Use	1994	1995
Concrete aggregate	4,610	4,790
Fillers	43,500	61,100
Filter aid	69,600	64,400
Formed products 2/	432,000	429,000
Horticultural aggregate 3/	55,100	62,000
Low-temperature insulation	2,730	2,270
Masonry and cavity-fill insulation	10,200	8,360
Plaster aggregate	6,840	5,230
Other 4/	11,500	14,900
Total	636,000	652,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes acoustic ceiling tile, pipe insulation, roof insulation board, and unspecified formed products.

3/ Includes fertilizer carriers.

4/ Includes high-temperature insulation, oil-water absorbents, acoustic tile, paint extender (1995), and various nonspecified industrial uses.

TABLE 4
PERLITE: WORLD PRODUCTION, BY COUNTRY 1/ 2/

(Metric tons)

Country 3/	1991	1992	1993	1994 e/	1995 e/
Armenia 4/	XX	50,000 e/	10,000 e/	5,000	6,000
Australia e/ 5/	5,000	5,000	5,000	5,000	5,000
Czechoslovakia e/ 6/ 7/	50,000	50,000	XX	XX	XX
Greece (screened) e/	286,404 8/	250,000	250,000	200,000	200,000
Hungary 5/	87,750	93,000 e/	80,000 r/	85,000 r/ 8/	104,000 8/
Iran	6,275	5,000	6,000 e/	6,000	6,000
Italy e/	70,000	65,000	65,000	65,000	60,000
Japan e/	203,000	203,000	200,000	200,000	200,000
Mexico 5/	48,860	42,637	34,600	35,000	35,000
Philippines	2,894	2,800 e/	19,779	20,000	20,000
Slovakia 7/	XX	XX	50,000 e/	50,000	50,000
South Africa	41	97	328	300	300
Turkey 5/	133,942 r/	280,883	147,864 r/	164,582 r/ 8/	165,000
U.S.S.R. e/ 4/ 9/	80,000	XX	XX	XX	XX
United States (processed ore sold and used by producers)					
	514,000	541,000	569,000	644,000	700,000 8/
Total	1,490,000 r/	1,590,000	1,440,000 r/	1,480,000 r/	1,550,000

e/ Estimated. r/ Revised. XX Not applicable.

1/ World totals, U.S. data, and estimated data are rounded to three significant digits; may not add to totals shown.

2/ Unless otherwise stated, figures represent processed ore output. Table contains data available through June 20, 1996.

3/ In addition to the countries listed, Algeria, Bulgaria, China, Iceland, Mozambique, and the former Yugoslavia are believed to have produced perlite, but output data are not reported, and available information is inadequate for the formulation of reliable estimates of output levels.

4/ All production in the U.S.S.R. for 1991 came from Armenia.

5/ Crude ore.

6/ Dissolved on Dec. 31, 1992.

7/ All production in Czechoslovakia from 1990-92 came from Slovakia.

8/ Reported figure.

9/ Dissolved in Dec. 1991.