## **FELDSPAR**

(Data in thousand metric tons unless otherwise noted)

<u>Domestic Production and Use</u>: U.S. feldspar production in 2004 had an estimated value of about \$43 million. The three leading producers accounted for about 70% of the production, with six other companies supplying the remainder. Operations in North Carolina provided more than 40% of the output; facilities in Virginia, California, Georgia, Oklahoma, Idaho, and South Dakota, in estimated descending order of production, produced the remainder. Feldspar processors reported coproduct recovery of mica and silica sand.

Feldspar is ground to about 20 mesh for glassmaking and to 200 mesh or finer for most ceramic and filler applications. It was estimated that feldspar shipments went to at least 30 States and to foreign destinations, including Canada and Mexico. In pottery and glass, feldspar functions as a flux. The estimated 2004 end-use distribution of domestic feldspar was glass, 70%, and pottery and other, 30%.

Salient Statistics—United States:	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	2004 <sup>e</sup>
Production, marketable <sup>e</sup>	790	800	790	800	790
Imports for consumption	7	6	5	8	28
Exports	11	5	10	9	8
Consumption, apparent <sup>e</sup>	786	801	785	799	810
Price, average value, marketable production,					
dollars per ton <sup>e</sup>	56.00	55.00	54.00	54.00	54.00
Stocks, producer, yearend <sup>1</sup>	NA	NA	NA	NA	NA
Employment, mine and preparation plant, number <sup>e</sup>	400	400	400	400	400
Net import reliance <sup>2</sup> as a percentage					
of apparent consumption	Е	( <sup>3</sup> )	Е	Е	2

Recycling: Insignificant.

Import Sources (2000-03): Mexico, 91%; Turkey, 7%; and other, 2%.

Tariff: Item Number Normal Trade Relations

12-31-04
Feldspar 2529.10.0000 Free.

**Depletion Allowance:** 14% (Domestic and foreign).

Government Stockpile: None.

**Events, Trends, and Issues:** Glass, including containers and insulation for housing and building construction, continued to be the leading end use of feldspar in the United States. U.S. shipments of glass containers were about 4% higher in the first 8 months of 2004 than in the comparable period of 2003, according to the U.S. Census Bureau.

An active U.S. housing construction market consumed large quantities of tile and vitreous plumbing fixtures and, therefore, feldspar. U.S. housing starts for the first 9 months of 2004 were about 8% higher than in the comparable period of 2003, according to the U.S. Census Bureau. A major portion of U.S. tile consumption in recent years has been supplied by imports.

Turkey has recently become a significant exporter of feldspar to the United States.

Unimin Corp. increased its Minex nepheline syenite functional filler production capacity by 50% at its Blue Mountain, Ontario, Canada, operation. Markets for the company's functional fillers include architectural and industrial paint and coatings applications. The Minex products are said to have environmental and performance properties, including improved weatherability. Other major markets for nepheline syenite are glass and ceramics.

## **FELDSPAR**

## **World Mine Production, Reserves, and Reserve Base:**

World Willie I Toddottori, Reserves, and Reserve Base.						
	Mine pro	Mine production				
	<u>2003</u>	<u>2004<sup>e</sup></u>				
United States <sup>e</sup>	800	790				
Argentina	60	60				
Australia	50	50				
Brazil	75	75				
Colombia	100	100				
Czech Republic	350	400				
Egypt	350	350				
France	650	670				
Germany	450	500				
Greece	95	125				
India	150	150				
Iran	190	190				
Italy	2,500	2,500				
Japan	50	50				
Korea, Republic of	400	400				
Mexico	330	330				
Norway	74	74				
Poland	240	250				
Portugal	120	125				
South Africa	57	50				
Spain	450	500				
Thailand	780	780				
Turkey	1,800	1,900				
Venezuela	150	150				
Other countries	<u>529</u>	400				
World total (rounded)	10,800	11,000				

## Reserves and reserve base<sup>5</sup>

Quantitative estimates of reserves and reserve base are not available.

<u>World Resources</u>: Identified and hypothetical resources of feldspar are more than adequate to meet anticipated world demand. Quantitative data on resources of feldspar existing in feldspathic sands, granites, and pegmatites generally have not been compiled. There is ample geologic evidence that resources are large, although not always conveniently accessible to the principal centers of consumption.

<u>Substitutes</u>: Feldspar can be replaced in some of its end uses by clays, electric furnace slag, feldspar-silica mixtures, pyrophyllite, spodumene, or talc. Imported nepheline syenite, however, was the major alternative material.

<sup>&</sup>lt;sup>e</sup>Estimated. E Net exporter. NA Not available.

<sup>&</sup>lt;sup>1</sup>Change in stocks assumed to be zero for apparent consumption and net import reliance calculations.

<sup>&</sup>lt;sup>2</sup>Defined as imports – exports + adjustments for Government and industry stock changes.

<sup>3</sup>Less than 1/2 unit

<sup>&</sup>lt;sup>4</sup>Industrial Minerals, 2004, Unimin completes nepheline syenite expansion: Industrial Minerals, no. 444, September, p. 8.

<sup>&</sup>lt;sup>5</sup>See Appendix C for definitions.