## **FELDSPAR**

(Data in thousand metric tons unless otherwise noted)

<u>Domestic Production and Use</u>: U.S. feldspar production in 2007 had an estimated value of about \$45 million. The three leading producers accounted for about two-thirds of the production, with six other companies supplying the remainder. Operations in North Carolina provided about 45% of the output; facilities in Virginia, California, Oklahoma, Georgia, Idaho, and South Dakota, in descending order of estimated 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 2007 end-use distribution of domestic feldspar was glass, 63%, and pottery and other, 37%.

Salient Statistics—United States:	<u>2003</u>	2004	2005	<u>2006</u>	2007 <sup>e</sup>
Production, marketable <sup>e</sup>	800	770	750	760	760
Imports for consumption	8	21	26	5	4
Exports	9	10	15	10	11
Consumption, apparent <sup>e</sup>	799	781	761	755	753
Price, average value, marketable production,					
dollars per ton <sup>e</sup>	54	57	57	59	59
Stocks, producer, yearend <sup>1</sup>	NA	NA	NA	NA	NA
Employment, mine, preparation plant,					
and office, number <sup>e</sup>	400	400	400	400	400
Net import reliance <sup>2</sup> as a percentage					
of apparent consumption	E	1	1	E	E

**Recycling:** There is no recycling of feldspar by producers; however, glass container producers use cullet (recycled glass), thereby reducing feldspar consumption.

**Import Sources (2003-06):** Turkey, 61%; Mexico, 38%; and other, 1%.

Tariff: Item Number Normal Trade Relations

12-31-07
Feldspar 2529.10.0000 Free.

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

Government Stockpile: None.

## **FELDSPAR**

**Events, Trends, and Issues:** Glass, including beverage 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 in the first 9 months of 2007 were slightly higher than in the comparable period of 2006, according to the U.S. Census Bureau.

Feldspar use in tile and vitreous sanitaryware reflected housing construction. U.S. housing starts for the first 9 months were about 25% lower than in the same period of 2006, according to the U.S Census Bureau. In 2006 (latest data), 80% of ceramic tiles and 50% of the plumbing fixtures sold in the United States were imported.<sup>3</sup>

China reportedly was the leading producing country of ceramics, including sanitaryware, tableware, and tile. The world sanitaryware market in 2006 (latest data) was an estimated 265 million pieces. Of this total, China produced 98 million pieces, or 36%. In recent years, price increases of energy, labor, natural minerals, power, and transportation have resulted in significant production cost increases in Chinese sanitaryware manufacturing.<sup>4</sup>

World Mine Production, Reserves, and Reserve Base:

110110110110111111111111111111111111111		Mine production		Reserve base <sup>5</sup>
	<u>2006</u>	2007 <sup>e</sup>	Reserves <sup>5</sup>	
United States <sup>e</sup>	760	760	NA	NA
Argentina	150	160	NA	NA
Brazil	123	130	NA	NA
China	1,900	2,000	NA	NA
Colombia	100	100	NA	NA
Czech Republic	475	480	25,000	68,000
Egypt	350	350	NA	NA
France	650	650	NA	NA
Germany	167	170	NA	NA
India	160	160	NA	NA
Iran	250	250	NA	21,000
Italy	3,000	4,000	NA	NA
Japan	1,000	900	NA	NA
Korea, Republic of	500	450	NA	NA
Mexico	450	450	NA	NA
Poland	300	300	11,000	87,000
Portugal	134	130	NA	NA
Spain	580	580	NA	NA
Thailand	1,000	1,100	NA	NA
Turkey	2,300	2,300	NA	NA
Venezuela	200	210	NA	NA
Other countries	<u>851</u>	<u>850</u>	<u>NA</u>	NA
World total (rounded)	15,400	16,000	Large	Large

<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>&</sup>lt;sup>3</sup>Rogers, W.Z., 2007, Feldspar and nepheline syenite: Mining Engineering, v. 59, no. 6, June, p. 29-30.

<sup>&</sup>lt;sup>4</sup>Wilson, Ian, 2007, Chinese sanitaryware: Industrial Minerals, no. 476, May, p. 30-39.

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