

**MICA (NATURAL), SCRAP AND FLAKE<sup>1</sup>**

(Data in thousand metric tons, unless otherwise noted)

**Domestic Production and Use:** Scrap and flake mica production, excluding low-quality sericite, was estimated to be 94,000 metric tons in 1999. North Carolina accounted for about 51% of U.S. production. The remaining output came from Georgia, New Mexico, South Carolina, and South Dakota. Scrap mica was recovered principally from mica and sericite schist and as a byproduct from feldspar, kaolin, and industrial sand beneficiation. The majority of domestic production was processed into small particle-size mica by either wet or dry grinding. Primary uses were joint compound, paint, roofing, oil well drilling additives, and rubber products. The value of 1999 scrap mica production was estimated at \$9.7 million. Ground mica sales in 1998 were valued at \$31.2 million. There were nine domestic producers of scrap and flake mica.

<b>Salient Statistics—United States:</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999<sup>e</sup></b>
Production: <sup>2 3</sup> Mine	108	97	114	87	94
Ground	98	103	110	104	113
Imports, mica powder and mica waste	22	18	23	23	27
Exports, mica powder and mica waste	7	8	8	8	13
Consumption, apparent <sup>4</sup>	112	107	122	137	146
Price, average, dollars per ton, reported:					
Scrap and flake	52	81	83	87	103
Ground:					
Wet	974	1,032	1,080	909	1,000
Dry	174	182	176	179	180
Stocks, producer, yearend <sup>e</sup>	13	7	NA	NA	NA
Employment, mine, number <sup>e 5</sup>	360	NA	347	367	360
Net import reliance <sup>6</sup> as a percent of apparent consumption	5	4	9	24	23

**Recycling:** None.

**Import Sources (1995-98):** Canada, 61%; India, 29%; Finland, 5%; Japan, 2%; and other, 3%.

<b>Tariff:</b> Item	<b>Number</b>	<b>Normal Trade Relations</b> <b>12/31/99</b>
Mica powder	2525.20.0000	Free.
Mica waste	2525.30.0000	Free.

**Depletion Allowance:** 23% (Domestic), 15% (Foreign).

**Government Stockpile:** None.

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**Events, Trends, and Issues:** Domestic production of ground mica increased in 1999. The increase was primarily the result of higher production in Georgia. Part of the production shortfall from the closing of the mine at Bessemer City, NC, was offset by increased production from operations in Deep Step, GA, and Newell, SD, and from increased capacity in Spruce Pine, NC. The final permits were obtained to begin development of a mica mine near Black Canyon, AZ. Development of the mica deposit was expected to commence in the final quarter of 1999. The United States remained a major world producer of scrap and flake mica. Imported mica scrap and flake is primarily used for making mica paper and as a filler and reinforcer in plastics.

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

	Mine production		Reserves <sup>7</sup>	Reserve base <sup>7</sup>
	1998	1999 <sup>e</sup>		
United States <sup>2</sup>	87	94	Large	Large
Brazil	4	4	Large	Large
Canada	17	17	Large	Large
India	1	1	Large	Large
Korea, Republic of	38	38	Large	Large
Russia	100	100	Large	Large
Other countries	41	40	Large	Large
World total	288	294	Large	Large

**World Resources:** Resources of scrap and flake mica are available in granite, pegmatite, schist, and clay deposits and are considered more than adequate to meet anticipated world demand in the foreseeable future.

**Substitutes:** Some of the lightweight aggregates, such as diatomite, vermiculite, and perlite, may be substituted for ground mica when used as a filler. Ground synthetic fluorophlogopite, a fluorine-rich mica, may replace natural ground mica for uses that require the thermal and electrical properties of mica.

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

<sup>1</sup>See also Mica (Natural), Sheet.

<sup>2</sup>Sold or used by producing companies.

<sup>3</sup>Excludes low-quality sericite used primarily for brick manufacturing.

<sup>4</sup>Based on ground mica.

<sup>5</sup>Total employment at mines and mills where mica was produced and processed, excluding feldspar companies with byproduct production. Employees were not assigned to specific commodities in calculating employment.

<sup>6</sup>Defined as imports - exports + adjustments for Government and industry stock changes.

<sup>7</sup>See Appendix C for definitions.