

**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 97,000 tons in 2003. North Carolina accounted for about 40% 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, oil well drilling additives, paint, roofing, and rubber products. The value of 2003 scrap mica production was estimated at \$20.2 million. Ground mica sales in 2002 were valued at \$29.6 million. There were nine domestic producers of scrap and flake mica.

<b><u>Salient Statistics—United States:</u></b>	<b><u>1999</u></b>	<b><u>2000</u></b>	<b><u>2001</u></b>	<b><u>2002</u></b>	<b><u>2003<sup>e</sup></u></b>
Production: <sup>2,3</sup>					
Mine	95	101	98	81	98
Ground	111	112	89	98	107
Imports, mica powder and mica waste	21	29	32	38	14
Exports, mica powder and mica waste	11	10	9	10	7
Consumption, apparent <sup>4</sup>	125	119	121	106	105
Price, average, dollars per ton, reported:					
Scrap and flake	148	136	82	90	120
Ground:					
Wet	849	751	771	960	1,000
Dry	192	169	147	180	200
Stocks, producer, yearend	NA	NA	NA	NA	NA
Employment, mine, number <sup>5</sup>	367	NA	NA	NA	NA
Net import reliance <sup>6</sup> as a percentage of apparent consumption	10	15	19	24	7

**Recycling:** None.

**Import Sources (1999-2002):** Canada, 55%; India, 24%; China, 12%; Argentina, 2%; and other, 7%.

<b><u>Tariff:</u></b>	<b><u>Item</u></b>	<b><u>Number</u></b>	<b><u>Normal Trade Relations</u></b>
			<b><u>12/31/03</u></b>
	Mica powder	2525.20.0000	Free.
	Mica waste	2525.30.0000	Free.

**Depletion Allowance:** 22% (Domestic), 14% (Foreign).

**Government Stockpile:** None.

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**Events, Trends, and Issues:** Domestic production of ground mica increased in 2003. The increase primarily resulted from higher production in Georgia, New Mexico, and South Dakota. Production in North Carolina in 2003 was estimated to be essentially unchanged from 2002. Development continued at a newly opened mica operation in Arizona, and the associated processing plant produced several wet ground mica products. 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>
	2002	2003 <sup>e</sup>		
United States <sup>2</sup>	81	98	Large	Large
Brazil	4	4	Large	Large
Canada	17	17	Large	Large
India	2	2	Large	Large
Korea, Republic of	40	40	Large	Large
Russia	100	100	Large	Large
Other countries	35	35	Large	Large
World total (rounded)	280	300	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.