

**MICA (NATURAL), SHEET<sup>1</sup>**

(Data in metric tons, unless otherwise noted)

**Domestic Production and Use:** A minor amount of sheet mica, estimated at less than 500 kilograms, was produced in 1997. The domestic consuming industry was dependent on imports and shipments of Government stockpile excesses to meet demand for sheet mica. During 1997, an estimated 5,800 tons of unworked mica split block and mica splittings valued at \$2.4 million was consumed by 14 companies in 7 States, mainly in the East and Midwest. Most was fabricated into parts for electronic and electrical equipment. An additional estimated 1,600 tons of imported worked mica valued at \$15.4 million was also consumed.

<b>Salient Statistics—United States:</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997<sup>e</sup></b>
Production, mine <sup>e</sup>	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Imports, plates, sheets, and strips; worked mica; split block; splittings; other > \$0.55/kg	4,310	2,610	4,230	6,330	7,330
Exports, plates, sheets, and strips; worked mica; crude and rifted into sheet or splittings > \$0.55/kg	909	1,003	935	831	1,280
Shipments from Government stockpile excesses	165	134	511	1,110	326
Consumption, apparent	2,180	1,740	3,800	6,540	6,380
Price, average value, dollars per kilogram, muscovite mica, reported:					
Block	95	66	73	77	80
Splittings	1.55	1.72	1.86	1.75	1.80
Stocks, fabricator and trader, yearend <sup>e</sup>	502	503	NA	NA	NA
Net import reliance <sup>3</sup> as a percent of apparent consumption	100	100	100	100	100

**Recycling:** None.

**Import Sources (1993-96):** India, 66%; Belgium, 13%; China, 5%; Brazil, 5%; and other, 11%.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Most favored nation (MFN) 12/31/97</b>	<b>Non-MFN<sup>4</sup> 12/31/97</b>
	Split block mica	2525.10.0010	Free	Free.
	Mica splittings	2525.10.0020	Free	Free.
	Unworked—other	2525.10.0050	Free	Free.
	Plates, sheets, and strips of agglomerated or reconstructed mica	6814.10.0000	3.7% ad val.	40% ad val.
	Worked mica and articles of mica—other	6814.90.0000	3.6% ad val.	45% ad val.

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

**Government Stockpile:****Stockpile Status—9-30-97<sup>5</sup>**

<b>Material</b>	<b>Uncommitted inventory</b>	<b>Committed inventory</b>	<b>Authorized for disposal</b>	<b>Disposal plan FY 1997</b>	<b>Disposals FY 1997</b>
Block:					
Muscovite	1,200	198	1,024	—	380
Phlogopite	59	—	—	—	—
Film, muscovite	16	44	—	115	99
Splittings:					
Muscovite	5,643	127	5,643	284	339
Phlogopite	265	23	265	227	61

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**Events, Trends, and Issues:** Demand for sheet mica increased as imports of splittings from India increased to meet demand for electrical equipment, especially transformers. Imports remained the principal source of sheet mica, and shipments from Government stockpile excesses continued to be a significant source of supply. The availability of good quality mica remained in short supply. There were no environmental problems associated with the manufacture of mica products.

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

	Mine production		Reserves <sup>6</sup>	Reserve base <sup>6</sup>
	1996	1997 <sup>e</sup>		
United States	( <sup>2</sup> )	( <sup>2</sup> )	Very small	Small
India	2,100	2,000	Very large	Very large
Russia	1,500	1,500	Moderate	Large
Other countries	<u>200</u>	<u>200</u>	<u>Moderate</u>	<u>Large</u>
World total	3,800	3,700	Large	Large

**World Resources:** There has been no formal evaluation of world resources of sheet mica because of the sporadic occurrence of this material. Large deposits of mica-bearing rock are known to exist in countries such as Brazil, India, and Madagascar. Limited resources of sheet mica are available in the United States. These domestic resources are uneconomic because of the high cost of hand labor required to mine and process the sheet mica.

**Substitutes:** Many materials can be substituted for mica in many electrical and electronic uses. Substitutes include acrylic, Benelex®, cellulose acetate, Delrin®, Duranel® N, fiberglass, fishpaper, Kapton®, Kel F®, Kydex®, Lexan®, Lucite®, Mylar®, nylon, nylatron, Nomex®, Noryl®, phenolics, Plexiglass®, polycarbonate, polyester, styrene, Teflon®, vinyl-PVC, and vulcanized fiber. Mica paper made from scrap mica can be substituted for sheet mica in electrical uses.

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

<sup>1</sup>See also Mica (Natural), Scrap and Flake.

<sup>2</sup>Less than ½ unit.

<sup>3</sup>Defined as imports - exports + adjustments for Government and industry stock changes.

<sup>4</sup>See Appendix B.

<sup>5</sup>See Appendix C for definitions.

<sup>6</sup>See Appendix D for definitions.