

MICA (NATURAL), SHEET¹

(Data in metric tons unless otherwise noted)

Domestic Production and Use: A minor amount of sheet mica was produced in 2004, incidental to scrap and flake mica production and the mining of a gemstone-bearing pegmatite in Virginia. The domestic consuming industry was dependent upon imports and shipments of U.S. Government stockpile excesses to meet demand for sheet mica. During 2004, an estimated 150 tons of unworked mica split block and mica splittings valued at \$153,000 was consumed by five companies in four States, mainly in the East and the Midwest. Most was fabricated into parts for electronic and electrical equipment. An additional estimated 1,360 tons of imported worked mica valued at \$13.6 million also was consumed.

Salient Statistics—United States:	2000	2001	2002	2003	2004^e
Production, mine ^e	(²)	(²)	(²)	(²)	(²)
Imports, plates, sheets, strips; worked mica; split block; splittings; other > \$1.00/kg	5,430	4,290	1,580	1,140	1,570
Exports, plates, sheets, strips; worked mica; crude and rifted into sheet or splittings > \$1.00/kg	1,150	1,160	723	1,030	979
Shipments from Government stockpile excesses	1,230	1,860	894	1,280	1,170
Consumption, apparent	5,500	4,990	1,750	1,390	1,760
Price, average value, dollars per kilogram, muscovite and phlogopite mica, reported:					
Block	23	55	67	67	67
Splittings	1.81	1.67	1.82	1.74	1.80
Stocks, fabricator and trader, yearend	NA	NA	NA	NA	NA
Net import reliance ³ as a percentage of apparent consumption	100	100	100	100	100

Recycling: None.

Import Sources (2000-03): India, 65%; Belgium, 13%; China, 5%; Germany, 4%; and other, 13%.

Tariff: Item	Number	Normal Trade Relations 12-31-04
Split block mica	2525.10.0010	Free.
Mica splittings	2525.10.0020	Free.
Unworked—other	2525.10.0050	Free.
Plates, sheets, and strips of agglomerated or reconstructed mica	6814.10.0000	2.7% ad val.
Worked mica and articles of mica—other	6814.90.0000	2.6% ad val.

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

Government Stockpile:

Material	Stockpile Status—9-30-04⁴			Disposal plan FY 2004	Disposals FY 2004
	Uncommitted inventory	Committed inventory	Authorized for disposal		
Block:					
Muscovite (stained and better)	0.883	7.20	0.883	(⁵)	11.2
Film, muscovite	—	—	—	(⁵)	0.506
Splittings:					
Muscovite	7.13	121	7.13	(⁵)	1,160
Phlogopite	1.51	17	1.51	(⁵)	—

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Events, Trends, and Issues: Demand for sheet mica increased in 2004, following a decline in 2003. The increase in apparent consumption was primarily the result of increased imports of “plates, sheet, and strips of agglomerated or reconstituted mica” and “split block.” U.S. imports of mica splittings decreased, partly because of continued shipments from the National Defense Stockpile (NDS). Stocks of phlogopite block in the NDS were depleted by year end 2003. Imports and the NDS remained principal sources of the domestic supply of sheet mica. Stocks of mica remaining in the NDS have declined and future supplies are expected to come increasingly from imports, primarily from India. Prices for imported sheet mica also are expected to increase. Good quality mica remained in short supply. There were no environmental concerns associated with the manufacture and use of mica products.

World Mine Production, Reserves, and Reserve Base:

	Mine production ^e		Reserves ⁶	Reserve base ⁶
	2003	2004		
United States	(²)	(²)	Very small	Small
India	3,500	3,500	Very large	Very large
Russia	1,500	1,500	Moderate	Large
Other countries	200	200	Moderate	Large
World total	5,200	5,200	Very large	Very 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 numerous electrical, electronic, and insulation 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 and insulation applications.

^eEstimated. NA Not available. — Zero.

¹See also Mica (Natural), Scrap and Flake.

²Less than ½ unit.

³Defined as imports – exports + adjustments for Government and industry stock changes.

⁴See [Appendix B](#) for definitions.

⁵The total disposal plan for all categories of mica in the National Defense Stockpile is undifferentiated at 2,268 metric tons (5,000,000 pounds).

⁶See [Appendix C](#) for definitions.