MICA (NATURAL), SHEET[1]

(Data in metric tons unless otherwise noted)

Domestic Production and Use: A minor amount of sheet mica was produced in 2005, 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 2005, an estimated 54 tons of imported unworked mica split block and mica splittings valued at $52,000 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 1,280 tons of imported worked mica valued at $12.4 million also was consumed.

Salient Statistics—United States:	2001	2002	2003	2004	2005[e]
Production, mine[e]	(2)	(2)	(2)	(2)	(2)
Imports, plates, sheets, strips; worked mica; split block; splittings; other > $1.00/kg	4,290	1,580	1,130	1,400	2,150
Exports, plates, sheets, strips; worked mica; crude and rifted into sheet or splittings > $1.00/kg	1,160	723	1,030	979	2,250
Shipments from Government stockpile excesses	1,860	894	1,280	1,170	124
Consumption, apparent	4,990	1,750	1,390	1,760	[3]—
Price, average value, dollars per kilogram, muscovite and phlogopite mica, reported:					
Block	55	67	67	67	67
Splittings	1.67	1.82	1.74	1.80	1.80
Stocks, fabricator and trader, yearend	NA	NA	NA	NA	NA
Net import reliance[4] as a percentage of apparent consumption	100	100	100	100	E

Recycling: None.

Import Sources (2001-04): India, 50%; Belgium, 16%; China, 9%; Germany, 6%; and other, 19%.

Tariff: Item	Number	Normal Trade Relations 12-31-05
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:

Stockpile Status—9-30-05[5]

Material	Uncommitted inventory	Committed inventory	Authorized for disposal	Disposal plan FY 2005	Disposals FY 2005
Block:					
Muscovite (stained and better)	4.18	7.40	4.18	(6)	3.80
Film, muscovite	—	—	—	(6)	—
Splittings:					
Muscovite	6.82	2.72	6.82	(6)	114
Phlogopite	—	10.7	—	(6)	6.28

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MICA (NATURAL), SHEET

Events, Trends, and Issues: Demand for sheet mica was essentially unchanged in 2005, following an increase in 2004. Imports of worked sheet increased for "plates, sheets, and strips of agglomerated or reconstituted mica," and declined for "mica, worked, and articles of mica not classified elsewhere." U.S. imports of split block declined as imports of mica splittings increased. Shipments from the National Defense Stockpile (NDS) declined as remaining stocks decreased. Stocks of muscovite film in the NDS were depleted by fiscal year 2004. Stocks of phlogopite splittings were sold out in fiscal year 2005 and were awaiting shipment. Imports were the principal source of the domestic supply of sheet mica in 2005. Significant stocks of mica previously sold from the NDS to various mica traders and brokers were exported, however, causing the United States to appear to have no apparent consumption. Even though the United States was a net exporter based on apparent consumption, it remained essentially 100% import dependent for its supply of sheet mica. Adjusting for the increased exports of stocks in 2005, by averaging exports from the 3 previous years, a domestic consumption of sheet mica was estimated to be closer to 1,000 tons. Stocks of mica remaining in the NDS declined in 2005, and future supplies are expected to come increasingly from imports, primarily from India and Russia. Prices for imported sheet mica also are expected to increase. Good quality sheet 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[7]	Reserve base[7]
	2004	2005		
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 from pegmatites.

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.

[e]Estimated. E Net exporter. NA Not available. — Zero.
[1]See also Mica (Natural), Scrap and Flake.
[2]Less than ½ unit.
[3]See explanation in the Events, Trends, and Issues section.
[4]Defined as imports – exports + adjustments for Government and industry stock changes.
[5]See Appendix B for definitions.
[6]The total disposal plan for all categories of mica in the National Defense Stockpile is undifferentiated at 454 metric tons (1,000,000 pounds).
[7]See Appendix C for definitions.