

MICA (NATURAL)

(Data in metric tons unless otherwise noted)

Domestic Production and Use: Scrap and flake mica production, excluding low-quality sericite, was estimated to be 44,000 tons valued at \$5.3million. Mica was mined in Georgia, North Carolina, and South Dakota. Scrap mica was recovered principally from mica and sericite schist and as a byproduct from feldspar, industrial sand beneficiation, and kaolin. Eight companies produced an estimated 65,000 tons of ground mica valued at about \$23 million from domestic and imported scrap and flake mica. 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.

A minor amount of sheet mica was produced as incidental production from feldspar mining in North Carolina. Data was withheld to avoid disclosing company proprietary data. The domestic consuming industry was dependent on imports to meet demand for sheet mica. Most sheet mica was fabricated into parts for electrical and electronic equipment.

Salient Statistics—United States:	2014	2015	2016	2017	2018^e
Scrap and flake:					
Production: ¹					
Sold and used	48,200	32,600	28,000	40,000	44,000
Ground	81,600	65,800	59,500	69,700	65,000
Imports ²	33,400	33,200	31,500	29,700	21,000
Exports ³	8,080	7,440	6,340	6,790	4,800
Consumption, apparent ⁴	73,500	58,300	53,200	62,900	60,000
Price, average, dollars per metric ton, reported:					
Scrap and flake	117	142	152	165	120
Ground:					
Dry	278	304	326	289	330
Wet	458	423	435	424	450
Employment, mine, number	NA	NA	NA	NA	NA
Net import reliance ⁵ as a percentage of apparent consumption	34	44	47	36	26
Sheet:					
Sold and used	(⁶)	W	W	W	W
Imports ⁷	2,470	2,130	2,060	1,850	1,200
Exports ⁸	868	911	689	704	530
Consumption, apparent ⁴	1,600	1,210	1,370	1,150	680
Price, average value, dollars per kilogram, muscovite and phlogopite mica, reported:					
Block	278	W	W	W	W
Splittings	1.70	1.61	1.61	1.66	1.70
Stocks, fabricator and trader, yearend	NA	NA	NA	NA	NA
Net import reliance ⁵ as a percentage of apparent consumption	100	100	100	100	100

Recycling: None.

Import Sources (2014–17): Scrap and flake: Canada, 45%; China, 31%; India, 11%; Japan, 4%; and other, 9%. Sheet: China, 44%; Brazil, 24%; Belgium, 9%; Austria, 5%; and other, 18%.

Tariff: Item	Number	Normal Trade Relations 12–31–18
Split block mica	2525.10.0010	Free.
Mica splittings	2525.10.0020	Free.
Unworked, other	2525.10.0050	Free.
Mica powder	2525.20.0000	Free.
Mica waste	2525.30.0000	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.

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

Government Stockpile: None.

Events, Trends, and Issues: Domestic production of scrap and flake mica was estimated to have increased by 10% in 2018. Apparent consumption of scrap and flake mica decreased slightly because of a decrease in imports. Apparent consumption of sheet mica was estimated to have decreased by 41% in 2018 as a result of decreased imports of sheet mica from China and Brazil. No environmental concerns are associated with the manufacture and use of mica products. Future supplies of sheet mica for United States consumption were expected to come increasingly from imports, primarily from Austria, Belgium, Brazil, China, and India.

World Mine Production and Reserves: Estimates of production of scrap and flake mica in China were revised significantly upward based on new information from a Government source. China is the leading global producer of natural mica, accounting for 24% of estimated worldwide production. World production of sheet mica is shown to have remained steady; however, reliable production numbers for some countries that may influence that world total were unavailable.

	Scrap and flake			Sheet		Reserves ⁹
	Mine production		Reserves ⁹	Mine production ^e		
	2017	2018 ^e		2017	2018	
United States	40,000	44,000	Large	W	W	Very small
Canada	24,000	22,000	Large	NA	NA	NA
China	100,000	80,000	Large	NA	NA	NA
Finland	57,900	55,000	Large	NA	NA	NA
France	21,000	21,000	Large	NA	NA	NA
India	14,000	19,000	Large	1,000	1,000	110,000
Korea, Republic of	14,600	15,000	12,000,000	—	—	NA
Madagascar	23,000	23,000	Large	—	—	NA
Turkey	12,000	12,000	620,000	—	—	NA
Other countries	50,000	50,000	Large	200	200	Moderate
World total (rounded)	360,000	340,000	Large	¹⁰ 1,200	¹⁰ 1,200	Very large

World Resources: Resources of scrap and flake mica are available in clay deposits, granite, pegmatite, and schist, and are considered more than adequate to meet anticipated world demand in the foreseeable future. World resources of sheet mica have not been formally evaluated 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. Domestic resources are uneconomic because of the high cost of the hand labor required to mine and process sheet mica from pegmatites.

Substitutes: Some lightweight aggregates, such as diatomite, perlite, and vermiculite, may be substituted for ground mica when used as filler. Ground synthetic fluorophlogopite, a fluorine-rich mica, may replace natural ground mica for uses that require thermal and electrical properties of mica. Many materials can be substituted for mica in numerous electrical, electronic, and insulation uses. Substitutes include acrylic, cellulose acetate, fiberglass, fishpaper, nylatron, nylon, phenolics, polycarbonate, polyester, styrene, polyvinyl chloride, and vulcanized fiber. Mica paper made from scrap mica can be substituted for sheet mica in electrical and insulation applications.

^eEstimated. NA Not available. W Withheld to avoid disclosing company proprietary data. — Zero.

¹Excludes low-quality sericite used primarily for brick manufacturing.

²Includes Harmonized Tariff Schedule of the United States codes: 2525.10.0050, <\$1.00/kg; 2525.20.0000; and 2525.30.0000.

³Includes Schedule B numbers: 2525.10.0000, <\$1.00/kg; 2525.20.0000; and 2525.30.0000.

⁴Defined as sold or used by producing companies + imports – exports.

⁵Defined as imports – exports.

⁶Less than ½ unit.

⁷Includes Harmonized Tariff Schedule of the United States codes: 2525.10.0010; 2525.10.0020; 2525.10.0050, >\$1.00/kg; 6814.10.0000; and 6814.90.0000.

⁸Includes Schedule B numbers: 2525.10.0000, >\$1.00/kg; 6814.10.0000; and 6814.90.0000.

⁹See Appendix C for resource and reserve definitions and information concerning data sources.

¹⁰Excludes U.S. production.