

TALC AND PYROPHYLLITE¹

(Data in thousand metric tons unless otherwise noted)

Domestic Production and Use: Three companies operated five talc-producing mines in three States during 2017, and domestic production of crude talc was estimated to have increased slightly to 550,000 tons valued at \$19 million. Montana was the leading producer State, followed by Texas and Vermont. Total sales (domestic and export) of talc by U.S. producers were estimated to be 540,000 tons valued at \$108 million, a slight increase from those in 2016. Talc produced and sold in the United States was used in ceramics (including automotive catalytic converters) (20%), paint (19%), paper (15%), plastics (8%), rubber (5%), refractories (4%), roofing (4%), and cosmetics (3%). The remainder was for export, insecticides, and other miscellaneous uses. Of the estimated 380,000 tons of talc that was imported in 2017, it is likely that more than 75% was used in cosmetics, paint, and plastics applications. Including imported talc, the U.S. end-use rankings were thought to be, in decreasing order by tonnage, plastics, ceramics, paint, paper, roofing, rubber, cosmetics, and other.

One company in North Carolina mined and processed pyrophyllite in 2017. Domestic production was withheld in order to avoid disclosing company proprietary data and was estimated to have increased from that in 2016. Pyrophyllite was sold for refractory, paint, and ceramic products.

Salient Statistics—United States:	2013	2014	2015	2016	2017^e
Production, mine	542	608	615	536	550
Sold by producers	560	551	535	527	540
Imports for consumption	275	308	322	378	380
Exports	196	190	206	169	210
Consumption, apparent ²	621	726	731	745	710
Price, average, milled, dollars per metric ton ³	163	171	186	193	200
Employment, mine and mill, talc ⁴	250	230	239	223	210
Employment, mine and mill, pyrophyllite ⁴	23	26	29	30	31
Net import reliance ⁵ as a percentage of apparent consumption	13	14	16	28	23

Recycling: Insignificant.

Import Sources (2013–16): Pakistan, 35%; Canada, 28%; China, 26%; Japan, 5% (includes pyrophyllite); and other, 6%. Large quantities of crude talc are mined in Afghanistan before being milled in and exported from Pakistan.

Tariff: Item	Number	Normal Trade Relations 12–31–17
Natural steatite and talc:		
Not crushed, not powdered	2526.10.0000	Free.
Crushed or powdered	2526.20.0000	Free.
Talc, steatite, and soapstone; cut or sawed	6815.99.2000	Free.

Depletion Allowance: Block steatite talc: 22% (Domestic), 14% (Foreign). Other talc and pyrophyllite: 14% (Domestic and foreign).

Government Stockpile: None.

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Events, Trends, and Issues: Canada, China, and Pakistan were the principal import sources for talc in recent years, based on data reported by the U.S. Census Bureau. Imports from China and Pakistan increased annually by an average of 47% and 11%, respectively, in recent years. Canada and Mexico continued to be the primary destinations for U.S. talc shipments, collectively receiving about 65% of exports.

Consumption of talc in several domestic talc markets has declined since peak production of 1.06 million tons in 1995, with the largest decreases taking place in the ceramics (talc use fell by an estimated 54%), paper (40%), roofing (37%), cosmetics (23%), and paint (20%) industries. Ceramic tile and sanitaryware formulations and the technology for firing ceramic tile changed, reducing the amount of talc required for the manufacture of some ceramic products. Many domestic ceramic tile manufacturing plants also closed as tile imports increased, leading a major domestic producer to stop mining talc in 2008. For paint, the industry shifted its focus to production of water-based paint from oil-based paint in order to reduce volatile emissions. Talc is effective in oil-based paints but is not well suited for water-based paints because it is hydrophobic. Paper manufacturing decreased beginning in the 1990s, and some talc used for pitch control was replaced by chemical agents. For cosmetics, manufacturers of body dusting powders shifted some of their production from talc-based to corn-starch-based products. In contrast, sales of domestic talc for plastics rose by an estimated 54% from 1995 to 2017, primarily the result of increased use in automotive plastics, but a significant share of the increased demand has been met with imported talc. The paper industry has traditionally been the largest consumer of talc worldwide, although plastics are expected to overtake paper as the predominant end use within the next several years as Asian papermakers make greater use of talc substitutes and use of talc in automobile plastics increases.

World Mine Production and Reserves:

	Mine production		Reserves ⁶
	2016	2017 ^e	
United States (crude)	536	550	140,000
Brazil (crude and beneficiated) ⁷	850	850	52,000
China (unspecified minerals)	1,800	1,900	Large
France (crude)	450	470	Large
India ⁷	1,000	1,000	110,000
Japan ⁷	365	370	100,000
Korea, Republic of ⁷	600	610	11,000
Mexico	700	650	Large
Other countries	⁷ 1,680	⁷ 1,700	Large
World total (rounded)	⁷ 7,900	⁷ 8,100	Large

World Resources: The United States is self-sufficient in most grades of talc and related minerals. Domestic and world resources are estimated to be approximately five times the quantity of reserves.

Substitutes: Substitutes for talc include bentonite, chlorite, feldspar, kaolin, and pyrophyllite in ceramics; chlorite, kaolin, and mica in paint; calcium carbonate and kaolin in paper; bentonite, kaolin, mica, and wollastonite in plastics; and kaolin and mica in rubber.

^eEstimated.

¹All statistics exclude pyrophyllite unless otherwise noted.

²Defined as mine production + imports – exports.

³Average ex-works unit value of milled talc sold by U.S. producers, based on data reported by companies.

⁴Includes only companies that mine talc or pyrophyllite. Excludes office workers and mills that process imported or domestically purchased material.

⁵Defined as imports – exports.

⁶See [Appendix C](#) for resource and reserve definitions and information concerning data sources.

⁷Includes pyrophyllite.