

Mineral Industry Surveys

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TITANIUM IN FOURTH QUARTER 2025

In the fourth quarter of 2025, U.S. imports of titanium mineral concentrates, excluding titaniferous iron ore, totaled 227,000 metric tons (t) (gross weight) which included titanium slag (120,000 t), ilmenite (86,500 t), and rutile (19,900 t). Imports of titanium slag increased 42 percent compared to imports of titanium slag in the previous quarter, imports of ilmenite decreased by 43 percent, and imports of rutile decreased by 63 percent (table 4). Exports of titanium ores and concentrates in the fourth quarter of 2025 were 7,990 t, a more than sixfold increase compared with exports in the prior period (table 2).

Imports of all forms of titanium pigment in the fourth quarter of 2025 were 42,100 t, a 16 percent decrease compared with those in the third quarter of 2025 (table 5). Exports of all forms of titanium pigment were 66,700 t, a 15 percent decrease compared with those in the prior quarter (table 2).

In the fourth quarter of 2025, total imports of titanium metal, excluding ferrotitanium, were 18,200 t and were primarily in the form of sponge (52 percent) and waste and scrap (38 percent). Estimated imports of sponge decreased by 15 percent and imports of waste and scrap decreased by 10 percent compared with those in the prior quarter. Imports of ingot, powder, and other unwrought products were 523 t, 36 percent less than those in the prior quarter. Total exports of all forms of titanium metal in the fourth quarter of 2025 increased 6 percent to 11,500 t from 10,800 t in the prior quarter (table 1).

Industry News

In November 2025, the Export-Import Bank of the United States approved a financing package of \$27.4 million for 6K Inc. (Massachusetts) to expand metal powder production capacity in Burgettstown, Pennsylvania. The plant utilized a proprietary microwave plasma process to produce metal and alloy powders, including titanium and nickel, from various types of scrap. 6K Inc. planned to scale production from 200 metric tons per year (t/yr) of metal powder to 1,000 t/yr for domestic defense applications. 6K Inc. was previously awarded a \$23.4 million grant under Defense Production Act Title III authorities in December 2023 (6K Inc., 2023, 2025).

During the fourth quarter of 2025, IperionX Ltd. (North Carolina) completed commissioning of equipment for titanium

metal powder production at its plant in Virginia. IperionX planned to scale titanium powder production capacity from 200 t/yr in 2026 to 1,400 t/yr in 2027 and further to 10,000 t/yr by 2030. IperionX would produce titanium metal powder from scrap feedstock and further process the powder into mill products and titanium components. The U.S. government supported development of the Virginia facility with a \$47.1 million award announced in February and by supplying 290 t of scrap feedstock at no cost (IperionX Ltd., 2025; 2026, p. 1, 3–5).

Industry Participation

Industry participation is key to the publication of aggregated totals of domestic titanium statistics. In the fourth quarter of 2025, domestic production, consumption, shipments, and stocks of sponge, ingot, slab, and mill products were withheld to avoid disclosing company proprietary data owing to limited responses (table 1).

The U.S. Geological Survey's (USGS) National Minerals Information Center canvasses the nonfuel mining and mineral processing industry in the United States for data on mineral production, consumption, recycling, stocks, and shipments. Reporting is voluntary, and the USGS greatly appreciates the data provided by companies participating in the surveys throughout the United States. The data that companies provide are the foundation upon which the USGS builds its minerals information publications. Unless authorization is granted for release, the data furnished are aggregated to avoid disclosing company proprietary data and are treated as confidential by the Department of the Interior.

Companies may report on a monthly, quarterly, semiannual, and (or) annual basis, depending on the frequency of the surveys. Canvass forms are mailed shortly after the end of the reporting period and are requested to be returned within about 15 to 30 days. In addition to reporting by paper canvass forms, companies can electronically submit data to contribute to this valuable effort. Companies already registered with the USGS can sign up to report electronically by selecting the "Sign up" link at <https://mids.er.usgs.gov>. To notify the USGS of a new operation, or for further information on registering for electronic

submissions, visit <https://mids.er.usgs.gov>. The USGS titanium metal quarterly survey has a canvass code of G37. For more information on how to participate in the titanium surveys, please contact Samantha Ewing using the contact information listed above.

References Cited

- 6K Inc., 2023, Department of Defense awards 6K Additive a \$23.4 million grant as part of a more than \$50 million investment program for upcycling critical metals for use in key defense applications: North Andover, Massachusetts, 6K Inc. press release, December 8, accessed March 20, 2026, at <https://www.6kinc.com/news/press-release/departement-of-defense-awards-6k-additive-a-23-4-million-grant-as-part-of-a-more-than-50-million-investment-program-for-upcycling-critical-metals-for-use-in-key-defense-applications/>.
- 6K Inc., 2025, 6K Additive secures approval for \$27.4 million EXIM loan to assist with critical minerals expansion in Pennsylvania with the Department of War: North Andover, Massachusetts, 6K Inc. press release, November 25, accessed March 19, 2026, at <https://6kadditive.com/news/6k-additive-secures-approval-for-27-4-million-exim-loan-to-assist-with-critical-minerals-expansion-in-pennsylvania-with-the-department-of-war/>.
- IperionX Ltd., 2025, IperionX awarded \$47.1M by the U.S. DoD to secure U.S. titanium supply chains: Charlotte, North Carolina,, IperionX Ltd. press release, February 18, accessed March 20, 2026, at <https://iperionx.com/2025/02/18/iperionx-awarded-47-1m-by-the-u-s-dod-to-secure-u-s-titanium-supply-chains/>.
- IperionX Ltd., 2026, IperionX – December 2025 quarterly report: Charlotte, North Carolina,, IperionX Ltd., January 30, 14 p.,accessed March 20, 2026, at <https://iperionx.cohttps://app.sharelinktechnologies.com/announcement-preview/asx/bf84eb89dca035a276afda99c8679ad3m/investor-center/reports-presentations/>.

List Services

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services>.

Data Release

This report is considered preliminary and for informational purposes only. Raw data from this and other reports from the National Minerals Information Center are available at [Mineral Industry Surveys Data Release \(Provisional\) - ScienceBase-Catalog](#).

GENERAL INFORMATION

This publication is provided by the National Minerals Information Center (NMIC), U.S. Geological Survey (USGS).

Includes data available through March 18, 2026, unless otherwise noted.

NMIC data included in Excel tables of the Minerals Yearbook Chapters and Minerals Industry Surveys are considered preliminary, for informational purposes only. Comprehensive data releases and list services for NMIC publications are available at <https://www.usgs.gov/centers/national-minerals-information-center>. Data in these tables may not include granular footnotes.

Unless otherwise noted, totals, United States (U.S.) data, and estimated data are rounded to no more than three significant digits, except prices; may not add to totals shown. Data may include revisions to previously published data.

FOOTNOTES AND TERMINOLOGY

Year-to-date indicates the sum of all months or quarters for the given year to the given period.

Estimated data contained in a row or column are marked with a superscript “e.” Preliminary data contained in a row or column are marked with a superscript “p.”

Do, ditto. NA, not available. No., number. W, withheld to avoid disclosing company proprietary data. —, not applicable. <0.5, less than half a unit.

Ti - Chemical symbol and abbreviation for titanium.

TRADE DATA

Trade data are sourced from the U.S. Census Bureau (<https://usatrade.census.gov/>). "HTS" indicates the Harmonized Tariff Schedule of the United States code. "Schedule B" indicates the Schedule B of the United States number.

Imports refers to "imports for consumption." Import valuation is customs value, free-alongside-ship basis.

Exports refers to "domestic exports." Export valuation is on a free-alongside-ship basis.

CONTACT

For questions on this report, please contact Samantha Ewing, sewing@usgs.gov.

If you are an industry producer or consumer and would like to contribute to NMIC industry surveys, please contact Joseph Kohler, jkohler@usgs.gov.

Table 1. U.S. titanium metal supply and demand.
[Data are in metric tons, unless otherwise specified.]

Product	2024					2025				
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter
Production										
Sponge	W	W	W	W	W	W	W	W	W	W
Ingot	W	W	W	W	W	W	W	W	W	W
Mill products	W	W	W	W	W	W	W	W	W	W
Exports										
Waste and scrap	2,740	3,120	3,000	2,610	11,500	2,960	3,650	3,370	3,800	13,800
Sponge	38	4	21	7	70	4	16	39	4	63
Ingot	1,710	1,400	1,290	998	5,400	1,770	1,750	1,650	1,780	6,960
Other unwrought	973	1,070	938	1,050	4,030	942	823	875	895	3,530
Bar, rod, profiles, wire	2,190	1,980	2,150	1,680	8,000	2,130	1,940	1,820	1,680	7,570
Bloom, sheet bar, slab	777	746	921	895	3,340	298	170	201	156	825
Other wrought	2,800	3,090	2,970	2,960	11,800	3,050	3,030	2,820	3,140	12,000
Total	11,200	11,400	11,300	10,200	44,100	11,200	11,400	10,800	11,500	44,800
Imports										
Waste and scrap	6,560	6,980	7,510	6,790	27,800	7,870	8,460	7,790	7,000	31,100
Sponge ¹	11,300	9,160	9,590	9,830	39,800	10,500	11,000	11,100	9,450	42,000
Ingot	223	317	539	682	1,760	407	409	688	386	1,890
Powder	77	51	91	60	279	56	68	75	64	262
Other unwrought	17	57	30	125	228	37	48	57	73	214
Wrought	1,040	1,190	992	1,200	4,420	1,200	1,210	925	961	4,290
Castings	10	11	6	3	31	10	42	35	43	131
Other	225	239	343	275	1,080	325	304	354	222	1,210
Total	19,400	18,000	19,100	19,000	75,500	20,400	21,500	21,000	18,200	81,100
Stocks, end of period										
Sponge, industry	W	W	W	W	W	W	W	W	W	W
Scrap	W	W	W	W	W	W	W	W	W	W
Ingot	W	W	W	W	W	W	W	W	W	W
Consumption										
Sponge	W	W	W	W	W	W	W	W	W	W
Scrap	W	W	W	W	W	W	W	W	W	W
Ingot	W	W	W	W	W	W	W	W	W	W
Shipments										
Ingot and slab (producer net shipments)	W	W	W	W	W	W	W	W	W	W
Mill products, forging and extrusion billet (net shipments)	W	W	W	W	W	W	W	W	W	W
Mill products, Other (net shipments)	W	W	W	W	W	W	W	W	W	W
Total	W	W	W	W	W	W	W	W	W	W
Castings	W	W	W	W	W	W	W	W	W	W
Receipts, scrap										
Home	W	W	W	W	W	W	W	W	W	W
Purchased	W	W	W	W	W	W	W	W	W	W
Total	W	W	W	W	W	W	W	W	W	W

¹Estimated by the U.S. Geological Survey.

Table 2. U.S. exports of titanium product.
[Data are in metric tons, unless otherwise specified.]

Product and Schedule B code	2024					2025				
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter
Metal										
Waste and scrap (8108.30.0000)	2,740	3,120	3,000	2,610	11,500	2,960	3,650	3,370	3,800	13,800
Metal, unwrought										
Sponge (8108.20.0010)	38	4	21	7	70	4	16	39	4	63
Ingot (8108.20.0030)	1,710	1,400	1,290	998	5,400	1,770	1,750	1,650	1,780	6,960
Other (8108.20.0090)	973	1,070	938	1,050	4,030	942	823	875	895	3,530
Total	2,720	2,470	2,250	2,060	9,500	2,720	2,590	2,560	2,680	10,600
Metal, wrought										
Bar, rod, profiles, wire (8108.90.6031)	2,190	1,980	2,150	1,680	8,000	2,130	1,940	1,820	1,680	7,570
Bloom, sheet bar, slab (8108.90.6020)	777	746	921	895	3,340	298	170	201	156	825
Other (8108.90.8000)	2,800	3,090	2,970	2,960	11,800	3,050	3,030	2,820	3,140	12,000
Total	5,770	5,820	6,040	5,540	23,100	5,480	5,140	4,840	4,980	20,400
Pigment										
80% or more titanium dioxide (3206.11.0000)	75,300	83,400	92,500	86,300	338,000	73,500	79,500	73,500	62,000	288,000
Other titanium dioxide (3206.19.0000)	2,910	2,530	2,900	2,560	10,900	2,750	2,740	2,470	2,200	10,200
Unfinished titanium dioxide ¹ (2823.00.0000)	2,750	2,940	1,900	1,920	9,500	3,000	2,830	2,300	2,500	10,600
Total	81,000	88,900	97,300	90,800	358,000	79,300	85,100	78,300	66,700	309,000
Other										
Ferrotitanium and ferrosilicon titanium (7202.91.0000)	336	361	200	284	1,180	213	278	160	188	839
Ores and concentrates (2614.00.0000)	1,450	1,910	2,030	1,900	7,300	7,430	958	1,180	7,990	17,600

¹Unmixed and not surface treated.

Table 3. U.S. imports of titanium metal.
[Data are in metric tons, unless otherwise specified.]

Product and HTS code	2024					2025				
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter- 4th quarter	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter- 4th quarter
Waste and scrap (8108.30.0000)										
Canada	673	602	553	588	2,420	605	594	552	447	2,200
China	275	328	281	266	1,150	214	160	233	184	791
France	688	741	807	770	3,010	661	883	688	769	3,000
Germany	546	891	1,000	833	3,270	675	931	436	382	2,420
Italy	384	324	350	286	1,340	512	604	261	247	1,630
Japan	737	782	743	773	3,030	834	667	864	707	3,070
Korea, Republic of	692	545	733	562	2,530	616	804	847	643	2,910
Mexico	389	420	429	451	1,690	420	439	539	837	2,240
Poland	254	258	289	291	1,090	286	356	205	211	1,060
Singapore	250	352	292	249	1,140	604	942	647	335	2,530
United Kingdom	1,060	1,130	1,400	1,240	4,830	1,760	1,320	1,400	1,440	5,920
Other	609	601	639	481	2,330	684	752	1,120	802	3,360
Total	6,560	6,980	7,510	6,790	27,800	7,870	8,460	7,790	7,000	31,100
Unwrought, sponge (8108.20.0010)										
China	190	150	510	218	1,070	149	103	0	19	270
Japan	7,740	6,010	6,480	7,640	27,900	7,480	8,220	9,100	7,620	32,400
Kazakhstan ^e	1,220	770	84	340	2,410	1,390	1,290	916	460	4,050
Saudi Arabia	2,090	2,220	2,520	1,600	8,430	1,500	1,340	932	1,210	4,980
Other	24	20	0	33	77	19	18	120	145	302
Total	11,300	9,160	9,590	9,830	39,800	10,500	11,000	11,100	9,450	42,000
Unwrought, ingot (8108.20.0030)										
Kazakhstan	209	285	524	524	1,540	391	195	575	385	1,550
Russia	13	10	7	0	30	0	0	0	0	0
Other	<0.5	22	8	158	188	16	214	112	1	342
Total	223	317	539	682	1,760	407	409	688	386	1,890
Unwrought										
Powder (8108.20.0015)	77	51	91	60	279	56	68	75	64	262
Other (8108.20.0095)	17	57	30	125	228	37	48	57	73	214
Wrought										
Bar, rod, profiles, wire (8108.90.6031)	382	301	351	399	1,430	411	583	395	391	1,780
Bloom, sheet bar, slab (8108.90.6020)	78	0	1	6	85	6	2	2	1	11
Castings (8108.90.3030)	10	11	6	3	31	10	42	35	43	131
Plate, sheet, strip, foil (8108.90.6045)	372	740	409	476	2,000	408	385	256	323	1,370
Tube and pipe (8108.90.6060)	75	57	59	59	250	72	81	139	61	353
Other (8108.90.6075)	129	91	172	263	654	299	157	132	185	773
Other articles of titanium (8108.90.3060)	225	239	343	275	1,080	325	304	354	222	1,210
Total	1,270	1,440	1,340	1,480	5,530	1,530	1,550	1,310	1,230	5,630
Grand total	19,400	18,000	19,100	19,000	75,400	20,400	21,500	21,000	18,200	81,100
Ferrotitanium and ferrosilicon titanium (7202.91.0000)										
Total	407	624	489	502	2,020	370	660	772	715	2,520

Table 4. U.S. imports of titanium concentrates.
[Data are in metric tons, unless otherwise specified.]

Product and HTS code	2024					2025				
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter
Ilmenite (2614.00.6020)										
Madagascar	69,500	0	29,000	82,000	181,000	82,900	18,100	86,000	42,000	229,000
Mozambique	61,000	0	43,200	36,300	140,000	83,800	42,200	42,300	44,500	213,000
Senegal	35,000	25,000	0	0	60,000	0	27,000	0	0	27,000
Ukraine	0	0	0	18,700	18,700	15,000	16,500	8,000	0	39,500
Other	10,000	0	4	40	10,100	0	4	16,400	26	16,400
Total	175,000	25,000	72,200	137,000	410,000	182,000	104,000	153,000	86,500	525,000
Titanium slag (2620.99.5000)										
Canada	3	42,900	47,300	55,300	146,000	0	16,000	766	0	16,800
Norway	0	20,000	40,000	28,500	88,500	0	40,100	20,000	40,000	100,000
South Africa	28,700	17,200	0	6,020	52,000	0	63,100	64,200	80,400	208,000
Other	0	0	<0.5	0	<0.5	0	0	0	0	0
Total	28,800	80,200	87,300	89,800	286,000	0	119,000	85,000	120,000	325,000
Rutile (2614.00.6040)										
Australia	25,200	12,400	594	39,500	77,600	33,500	628	37,500	416	72,100
Kenya	10,000	0	123	223	10,300	441	164	179	221	1,010
South Africa	30,400	9,770	29,600	7,710	77,400	7,240	10,100	10,900	19,000	47,300
Ukraine	0	0	10,900	2,620	13,500	0	56	3,770	0	3,830
Other	51	271	1,070	1	1,400	22,200	12,600	1,260	231	36,400
Total	65,600	22,500	42,300	50,000	180,000	63,400	23,600	53,600	19,900	161,000
Synthetic rutile (2614.00.3000)										
China	1	0	17	0	17	11	0	0	0	11
Sierra Leone	0	0	0	0	0	40	0	0	0	40
Other	0	0	0	0	0	0	<0.5	2	0	2
Total	1	0	17	0	17	51	<0.5	2	0	53
Titaniferous iron ore¹ (2614.00.6020), Canada										
Total	0	0	0	6	6	0	0	0	0	0

¹Includes materials consumed for purposes other than the production of titanium commodities, principally heavy aggregate and steel-furnace flux. Titaniferous iron ore from Canada is classified as ilmenite under the Harmonized Tariff Schedule of the United States and is not included in the previous ilmenite totals.

Table 5. U.S. imports of titanium pigment.
[Data are in metric tons, unless otherwise specified.]

Product and HTS code	2024					2025				
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter
80% or more titanium dioxide (3206.11.0000)										
Australia	1,550	2,170	2,730	2,010	8,460	1,490	2,520	1,160	1,640	6,810
Belgium	1,930	1,800	1,490	1,320	6,550	1,820	2,620	2,720	1,120	8,280
Canada	22,800	24,800	23,300	19,200	90,200	29,600	13,900	15,800	16,200	75,600
China	5,370	6,760	6,090	4,020	22,200	5,860	5,160	4,910	4,560	20,500
Czechia	1,250	1,740	1,180	1,160	5,340	1,900	1,650	1,690	1,420	6,660
Germany	3,210	3,130	3,790	2,920	13,000	3,330	4,340	2,630	2,000	12,300
Mexico	6,890	7,930	1,250	323	16,400	676	1,770	1,800	1,440	5,680
Spain	2,200	2,180	3,440	3,550	11,400	2,690	1,150	2,900	19	6,760
United Kingdom	731	1,830	2,550	2,230	7,340	1,900	1,810	1,620	958	6,290
Other	2,640	4,240	5,900	4,520	17,300	5,460	5,880	4,640	2,700	18,700
Total	48,600	56,600	51,700	41,300	198,000	54,800	40,800	39,900	32,100	168,000
Other titanium dioxide (3206.19.0000)										
Canada	3,830	3,800	3,870	3,350	14,800	3,750	2,840	3,610	3,530	13,700
France	200	206	31	12	449	2	364	39	146	552
Germany	61	47	46	37	191	70	374	61	66	571
India	233	389	271	298	1,190	497	281	398	150	1,330
Mexico	180	64	111	127	483	109	177	139	88	513
Netherlands	21	<0.5	136	228	386	252	321	287	253	1,110
Other	558	780	571	382	2,290	315	475	544	560	1,890
Total	5,080	5,290	5,030	4,440	19,800	5,000	4,840	5,080	4,790	19,700
Unfinished titanium dioxide¹ (2823.00.0000)										
China	1,980	1,690	1,710	1,840	7,220	3,130	1,440	1,620	1,450	7,640
Czechia	356	223	240	280	1,100	332	598	462	114	1,510
France	20	278	474	942	1,710	1,090	731	534	855	3,210
Germany	403	483	331	377	1,590	330	310	485	447	1,570
India	482	559	358	490	1,890	643	399	505	430	1,980
Korea, Republic of	565	511	1,180	717	2,980	269	1,610	820	1,350	4,040
Other	392	505	275	456	1,630	596	279	546	554	1,980
Total	4,200	4,250	4,570	5,100	18,100	6,390	5,360	4,980	5,200	21,900
Grand total	57,900	66,200[†]	61,300	50,800	236,000	66,100[†]	51,000	50,000	42,100	209,000

¹Unmixed and not surface treated.

Table 6. Titanium materials prices.

[Data are in dollars per metric ton, unless otherwise specified.]

Product and unit	2024				2025			
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter	2d quarter	3d quarter	4th quarter
Mineral concentrates¹								
Ilmenite, cost, insurance, freight, China	339	330	330	325	320	295	295	290
Rutile, bagged, free on board (f.o.b.) Australian ports	1,860	1,850	1,810	1,730	1,570	1,450	1,480	1,425
Rutile, bulk, f.o.b. Australian ports	1,330	1,330	1,280	1,250	1,170	1,130	1,125	1,100
Titanium slag²								
Canada, import	2,140	1,060	1,110	1,000	NA	1,110	NA	NA
Norway, import	NA	871	853	828	NA	832	794	767
South Africa, import	959	936	NA	928	NA	783	818	785
Metal								
Sponge metal, Japan, import (dollars per kilogram) ²	13.00	13.50	14.00	13.40	12.70	12.20	11.10	11.20
Titanium mill products (producer price index ³)	211	214	217	220	236	232	233	234
Titanium scrap, turnings, unprocessed ([Ti-6Al-4V] [dollars per pound]) ⁴	2.25	2.25	2.25	2.25	2.25	2.25	2.25	1.49
Ferrotitanium, 70% (max. 4.5% Al) per pound Ti (dollars per pound) ⁴	3.41	3.32	3.34	3.42	3.55	2.79	2.58	2.30
Pigment²								
80% or more titanium dioxide, import	3,110	3,150	3,220	3,200	3,170	3,300	3,130	3,100

¹Source: Fastmarkets IM.²Unit value based on landed-duty-paid U.S. imports for consumption.³June 1982=100. Source: U.S. Department of Labor, Bureau of Labor Statistics.⁴Source: S&P Global Platts Metals Week.