

Mineral Industry Surveys

For information, contact:

Joseph Gambogi, Mineral Commodity Specialist
National Minerals Information Center
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-7718, Fax: (703) 648-7757
Email: jgambogi@usgs.gov

Joseph J. Kohler (Data)
Telephone: (703) 648-7954
Fax: (703) 648-7792
Email: jkohler@usgs.gov

Internet: <https://www.usgs.gov/centers/nmic/>

TITANIUM IN THE SECOND QUARTER 2019

Industry participation is key to the publication of aggregated totals of domestic titanium statistics. In the second quarter, domestic production, consumption, shipments, and stock 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 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 canvas code of G37. For more information on how to participate in the titanium surveys, please contact Joseph Gambogi using the contact information listed above.

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/nmic/>.

TABLE 1
COMPONENTS OF U.S. TITANIUM METAL SUPPLY AND DEMAND¹

(Metric tons)

	2018				2019		
	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	1st quarter– 2d quarter
Production:							
Sponge	W	W	W	W	W	W	W
Ingot	22,300	21,900	20,700	85,000	W	W	W
Mill products	9,660	9,580	9,310	38,000	W	W	W
Exports:							
Waste and scrap	2,490	3,210	4,150	11,900	3,230	4,030	7,280
Sponge	70	30	46	533	233	375	608
Ingot	3,140	2,950	2,310	10,600	2,100	1,780	3,890
Other unwrought	756	755	632	2,770	500	616	1,120
Bar, rod, profiles, wire	1,500	1,440	1,820 ^r	5,890 ^r	1,820 ^r	1,810	3,570
Bloom, sheet bar, slab	1,000	442	357	2,600	311	345	656
Other wrought	2,630 ^r	2,790	3,040	11,300	3,170 ^r	3,180	6,360
Total	11,600	11,600	12,400	45,600	11,400	12,100	23,500
Imports:							
Waste and scrap	6,510 ^r	7,090 ^r	7,180 ^r	26,700 ^r	6,980 ^r	8,140	15,100
Sponge ^c	4,820	7,100	6,750 ^r	23,700	6,720 ^r	8,320	15,000
Ingot	682	629	319 ^r	1,950	570 ^r	641	1,210
Powder	40	44	42	191	38	41	79
Other unwrought	196	332	315	1,190	332	280	612
Wrought	1,820 ^r	2,030	1,850	7,630	1,940	2,460	4,400
Castings	22	21	25	85	30	15	45
Other	153	195	205 ^r	678	186 ^r	253	439
Total	14,200	17,400 ^r	16,700 ^r	62,100 ^r	16,800 ^r	20,100	36,900
Stocks, end of period:							
Sponge, industry	10,100	10,700	10,700	10,700	W	W	W
Scrap	13,300	15,900	15,900	15,900	11,500	W	W
Ingot	5,780	6,040	8,530	8,530	10,400	W	W
Consumption:							
Sponge	8,560	8,920	8,860	35,200	W	W	W
Scrap	11,000	16,300	10,900	52,100	W	W	W
Ingot	17,400	17,500	16,200	67,600	W	W	W
Shipments:							
Ingot and slab (producer net shipments)	6,300	5,470	6,810	23,300	W	W	W
Mill products (net shipments):							
Forging and extrusion billet	6,530	6,730	6,010	25,800	W	W	W
Other	3,130	2,850	3,310	12,200	W	W	W
Total	9,660	9,580	9,310	38,000	W	W	W
Castings	W	W	W	W	W	W	W
Receipts, scrap:							
Home	5,280	6,060	5,900	23,200	W	W	W
Purchased	13,500	13,800	12,600	52,000	W	W	W
Total	18,700	19,800	18,500	75,200	W	W	W

^cEstimated. ^rRevised. W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
U.S. EXPORTS OF TITANIUM PRODUCTS¹

(Metric tons)

	HTS ² Code	2018				2019		
		2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	1st quarter– 2d quarter
Metal:								
Waste and scrap	8108.30.0000	2,490	3,210	4,150	11,900	3,230	4,030	7,280
Unwrought:								
Sponge	8108.20.0010	70	30	46	533	233	375	608
Ingot	8108.20.0030	3,140	2,950	2,310	10,600	2,100	1,780	3,890
Other unwrought	8108.20.0090	756	755	632	2,770	500	616	1,120
Wrought:								
Bar, rod, profiles, wire	8108.90.6031	1,500	1,440	1,820 ^r	5,980 ^r	1,820 ^r	1,810	3,570
Bloom, sheet bar, slab	8108.90.6020	1,000	442	357	2,600	311	345	656
Other	8108.90.8000	2,630 ^r	2,790	3,040	11,300	3,170 ^r	3,180	6,360
Ferrotitanium and ferrosilicon titanium	7202.91.0000	603	1,000	975	3,120	325	490	815
Ores and concentrates	2614.00.0000	1,760	2,760	2,120	51,400	2,460	1,130	3,590
Pigment:								
80% or more titanium dioxide	3206.11.0000	138,000	126,000	114,000	508,000	93,300 ^r	90,800	184,000
Other titanium dioxide	3206.19.0000	4,110	3,210 ^r	3,170 ^r	15,800	3,510	3,770	7,280
Unfinished titanium dioxide ³	2823.00.0000	1,220	1,190	1,300 ^r	4,680 ^r	985	1,780	2,760

^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Harmonized Tariff Schedule of the United States.

³Unmixed and not surface treated.

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF TITANIUM METAL¹

(Metric tons)

	HTS ² Code	2018				2019		
		2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	1st quarter– 2d quarter
Waste and scrap:								
	8108.30.0000							
Canada		420	388	381	1,520	315	388	703
China		85	195	273 ^r	639 ^r	62	93	155
France		783	1,050 ^r	861 ^r	3,490 ^r	839	866	1,710
Germany		939	1,010 ^r	680 ^r	3,350 ^r	821 ^r	1,460	2,280
Italy		674	555	568	2,140	691 ^r	516	1,210
Japan		771	887	1,130	3,780	1,070 ^r	1,280	2,350
Korea, Republic of		313	461	339	1,290	379	377	756
Mexico		196	386	373	1,190	471	420	892
Singapore		214	138	92	586	221	217	439
United Kingdom		1,590	1,430 ^r	1,910 ^r	6,200	1,600	1,710	3,300
Other		521 ^r	596 ^r	570 ^r	2,530 ^r	514	815	1,330
Total		6,510 ^r	7,090 ^r	7,180 ^r	26,700 ^r	6,980 ^r	8,140	15,100
Unwrought:								
Sponge:								
	8108.20.0010							
Japan		4,410	6,870	6,180	22,100	6,190	7,370	13,600
Kazakhstan ^c		408	218	557	1,530	494 ^r	862	1,360
Other		(3)	16	14	88	35	84 ^r	119
Total		4,820	7,100	6,750 ^r	23,700	6,720 ^r	8,320	15,000
Ingot:								
	8108.20.0030							
Russia		682	629	314	1,940	539	531	1,070
Other		--	(3)	4	12	31 ^r	110	141
Total		682	629	319 ^r	1,950	570 ^r	641	1,210
Powder	8108.20.0015	40	44	42	193 ^r	38	41	79
Other	8108.20.0095	196	332	315	1,190	332	280	612
Wrought:								
Bar, rod, profiles, wire	8108.90.6031	521 ^r	630 ^r	525 ^r	2,210 ^r	525	589	1,110
Bloom, sheet bar, slab	8108.90.6020	80 ^r	80	5	475 ^r	279	448	726
Plate, sheet, strip, foil	8108.90.6045	911	950 ^r	919	3,650 ^r	908	1,150	2,060
Tube and pipe	8108.90.6060	207	206	150 ^r	686 ^r	91	105	196
Other	8108.90.6075	109	169 ^r	287 ^r	676 ^r	137	173	309
Total		1,830 ^r	2,040 ^r	1,890 ^r	7,700 ^r	1,940	2,460	4,400
Other articles of titanium:								
Castings	8108.90.3030	22	21	25	85	30	15	45
Other	8108.90.3060	153	195	205 ^r	678	186 ^r	253	439
Ferrotitanium and ferrosilicon titanium	7202.91.0000	834	551	477	2,710	1,100	825	1,920

^cEstimated. ^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Harmonized Tariff Schedule of the United States.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF TITANIUM CONCENTRATES¹

(Metric tons)

	HTS ² Code	2018				2019		
		2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	1st quarter– 2d quarter
Ilmenite:	2614.00.6020							
Australia		62,800	77,300	62,100	256,000	28,400	36,000	64,400
Madagascar		39,000	74,000	3,020	169,000	86,000	92,000	178,000
Mozambique		49,000	25,000	32,200	141,000	91,000	20,000	111,000
Senegal		40,500	--	25,700	66,200	27,300	28,100	55,400
Ukraine		14,900	--	33,500	68,600	40,300	--	40,300
Other		5,200	--	--	5,200	--	--	--
Total		211,000	176,000	157,000	706,000	273,000	176,000	449,000
Titanium slag:	2620.99.5000							
Canada		36,900	29,200	42,600	136,000	11,000	30,900	41,900
Norway		10,000	10,500	--	20,500	9,650	--	9,650
South Africa		99,700	74,900	79,900	343,000	70,800	144,000	215,000
Total		147,000	115,000	123,000	500,000	91,400	175,000	266,000
Rutile:	2614.00.6040							
Australia		10,400	17,100	6,180	65,800	32,900	17,600	50,500
Kenya		--	--	--	--	21,000	11,600	32,600
Sierra Leone		--	--	10,000	10,000	1	1	3
South Africa		20,700	44,600	46,200	163,000	42,500	52,500	94,900
Ukraine		152	156	20	426	5,970	40	6,010
Other		20	5,030 ^r	16	5,100 ^r	3	4,000	4,000
Total		31,300	66,900	62,400	245,000	102,000	85,700	188,000
Synthetic rutile:	2614.00.3000							
Australia		--	--	6,000	15,000	--	--	--
Other		--	53	20	73	60	39	98
Total		--	53	6,020	15,100	60	39	98
Titaniferous iron ore, Canada ³		10,100	--	16	10,100	--	(4)	(4)

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Harmonized Tariff Schedule of the United States.

³Includes materials consumed for purposes other than the production of titanium commodities, principally heavy aggregate and steel-furnace flux.

Titaniferous 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.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF TITANIUM PIGMENT¹

(Metric tons)

	HTS ² Code	2018				2019		
		2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	1st quarter	2d quarter	1st quarter– 2d quarter
80% or more titanium dioxide:	3206.11.0000							
Australia		241	259	655	1,240	2,940	2,350	5,290
Belgium		2,920	4,340	3,880	13,000	2,550	5,020	7,570
Canada		21,500	22,800	21,200	85,600	23,300	23,400	46,700
China		14,600	14,200	10,300	48,500	3,680	2,790	6,470
Czechia		1,740	1,290	1,340	5,630	1,380	1,510	2,890
Germany		5,200	4,180	8,410	21,500	3,310	4,670	7,980
Japan		1,590	1,560	1,090	5,640	1,590	1,300	2,880
Mexico		2,130	1,300	1,710	9,060	1,050	1,160	2,210
Spain		2,760	1,380	1,960	7,670	2,420	3,320	5,740
Other		4,790 ^r	4,910 ^r	5,030 ^r	17,500 ^r	8,060 ^r	5,610	13,700
Total		57,400	56,200	55,500	215,000	50,300	51,100	101,000
Other titanium dioxide:	3206.19.0000							
Canada		3,070	2,450	2,640	10,900	2,940	2,810	5,750
China		1,100	1,060	776	3,600	457 ^r	524	980
France		389	188	6	772	205	204	409
Germany		92	47	56	321	78	131	209
Italy		132	418	89	794	126	109	235
Other		343 ^r	366 ^r	435 ^r	1,460 ^r	307 ^r	319	626
Total		5,130	4,530	4,000	17,800	4,110 ^r	4,100	8,210
Unfinished titanium dioxide: ³	2823.00.0000							
Canada		217	18	--	277	66	1,330	1,400
China		6,580 ^r	5,340 ^r	4,470	21,900	2,600	2,630	5,230
France		292	224	809	2,050	574	416	991
Germany		1,020	1,690	1,150	4,730	843	627	1,470
India		1,340	604	516	3,200	415	975	1,390
Other		838	1,460	536	3,280	746	1,080	1,830
Total		10,300	9,330	7,480	35,400	5,240	7,060	12,300
Grand total		72,800	70,100	67,000	269,000	59,600	62,300	122,000

^rRevised. -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Harmonized Tariff Schedule of the United States.

³Unmixed and not surface treated.

Source: U.S. Census Bureau.

TABLE 6
PRICES FOR TITANIUM MATERIALS

(End of period)

		2018				2019	
		1st quarter	2d quarter	3d quarter	4th quarter	1st quarter	2d quarter
Concentrate:							
Ilmenite, CIF, China ¹	dollars per metric ton	185–200	190–200	160–180	164–180	170–180	180–190
Titanium slag, import ²	do.	622–742	638–749	642–790	700–790	790–872	731–861
Rutile, natural:¹							
Bagged, f.o.b. Australian ports	do.	950–1,200	1,000–1,250	1,050–1,300	1,045–1,350	1,045–1,350	1,150–1,350
Bulk, f.o.b. Australian ports	do.	800–900	800–900	1,000–1,050	1,000–1,050	1,000–1,100 ^r	1,100–1,200
Metal:							
Sponge metal, Japan, import ²	dollars per kilogram	10.90	10.70	10.50	10.80	10.50	10.30
Titanium mill products	producer price index ³	174	173	178	171	174	173
Titanium scrap, turnings, unprocessed (Ti-6Al-4V) ⁴	dollars per pound	0.65–0.70	0.70–0.75	0.80–0.90	0.80–0.90	0.85–0.90	0.85–0.90
Ferrotitanium, 70% (max. 4.5% Al) per pound Ti ⁴	do.	2.20–2.50	2.30–2.70	2.90–3.10	3.00–3.20	2.90–3.10	2.90–3.10
Pigment:							
Titanium dioxide pigment, import ²	dollars per metric ton	2,588	2,761	2,752	2,847	2,680	2,780
Titanium dioxide pigment	producer price index ³	216	214	214	214 ^r	208	NA ⁵

¹Revised. do. Ditto. NA Not available.

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: Platts Metals Week.

⁵The last titanium dioxide pigment producer price index update was February 2019.