

Mineral Industry Surveys

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TUNGSTEN IN JANUARY 2012

The following comparisons are based on preliminary data. January 2012 U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 13% less than that produced in December 2011. Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in January 2012 was slightly higher than reported consumption in December 2011. These materials were used to make alloys, cemented carbides, mill products, and other products, such as catalysts and pigments.

The table containing statistics on ammonium paratungstate production, consumption, and stocks has been removed from this publication until more statistics can be published. Data for U.S. imports and exports of tungsten for January 2012 are published in this issue.

Prices

Selected prices from Metal Bulletin for January 2012 are listed below. U.S. ammonium paratungstate prices in dollars per metric ton unit were converted from short-ton-unit prices and rounded to the nearest dollar. Prices for tungsten ore concentrates represent combined prices for wolframite and scheelite concentrates with a minimum tungsten trioxide (WO₃) content of 65%. Concentrate prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar.

Ammonium paratungstate, U.S. free market:

Low—\$463/metric ton unit WO₃ (\$420/short ton unit WO₃)
High—\$474/metric ton unit WO₃ (\$430/short ton unit WO₃)

Concentrates:

Low—\$140/metric ton unit WO₃ (\$127/short ton unit WO₃)
High—\$160/metric ton unit WO₃ (\$145/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consumption	Imports for consumption	Stocks, end of period			Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³				Industry ⁶	U.S. Government ³
2011:									
January	W	332	W	17,000	(7)	646	994	761	171
February	W	276	W	17,000	(7)	779	992	804	171
March	W	388	W	17,000	(7)	774	998	683	171
April	W	283	W	17,000	(7)	728	1,080	599	171
May	W	469	W	15,900	690	718	1,050	593	171
June	W	259	W	15,900	1,130	735	1,280	637	171
July	W	432	W	15,900	629	580	966	673	171
August	W	277	W	15,800	577	454	950	667	160
September	W	181	W	15,800	(7)	605	945	644	160
October	W	283	W	15,800	(7)	611	944	728	125
November	W	304	W	15,800	(7)	537	940	641	125
December	W	158	W	15,800	(7)	563	929	651	125
January–December	W	3,640	W	15,800	9,500	7,730	12,100	651	125
2012, January	W	340	W	15,800	583	492	943	622	125

W Withheld to avoid disclosing company proprietary data.

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

²Reported by consumers.

³Data from the Defense Logistics Agency, DLA Strategic Materials. Data are uncommitted material only.

⁴Net production of tungsten metal powder and tungsten carbide powder.

⁵Includes estimates and scrap.

⁶Data for tungsten metal powder and tungsten carbide powder reported by producers.

⁷Withheld to avoid disclosing company proprietary data; included in "January–December."

TABLE 2
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²		Stocks at end of period	
	2011	2012 January	2011	2012 January
Metal powder	3,300	208	273	319
Tungsten carbide powder	4,430	284	378	303
Total	7,730	492	651	622

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

²Receipts plus gross production less quantity used to make other products in table.

³Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 3
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1,2,3}

(Metric tons, tungsten content)

End use	2011		2012
	December	January–December ⁴	January
Steels	6	70	6
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	571	6,910	573
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	352	5,090	364
Total	929	12,100	943

W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

²Does not include materials used in making primary tungsten products.

³Includes estimates.

⁴May include revisions to previously published data.

⁵Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁶Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 4
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2011:						
January	10	W	569	W	6	994
February	10	W	567	W	6	992
March	10	W	570	W	6	998
April	10	W	565	W	6	1,080
May	10	W	571	W	6	1,050
June	10	W	567	W	6	1,280
July	10	W	568	W	6	966
August	10	W	570	W	6	950
September	10	W	567	W	6	945
October	10	W	567	W	6	944
November	10	W	564	W	6	940
December	10	W	563	W	6	929
January–December	118	W	6,810	W	74	12,100
2012, January	10	W	565	W	6	943
Stocks:						
2011:						
January	22	51	413	64	10	560
February	22	52	413	61	10	558
March	22	50	414	52	10	547
April	22	46	413	59	10	550
May	22	43	413	62	10	551
June	22	41	413	68	10	554
July	21	40	413	65	10	549
August	22	37	413	61	10	544
September	23	36	413	60	10	541
October	22	34	413	54	10	534
November	21	34	413	53	10	532
December	21	35	413	59	10	538
2012, January	21	35	413	58	10	537

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 5a
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2010	2,740	2,510	357	1,340	1,610	2,430	11,000	XX
2011:								
October	283	185	--	84	111	240	903	10,200
November	304	80	--	113	165	315	976	11,200
December:								
Austria	--	--	--	--	--	6	6	142
Belgium	--	--	--	--	--	(3)	(3)	32
Bolivia	40	--	--	--	--	--	40	866
Brazil	--	--	--	--	--	--	--	52
Canada	--	--	--	4	8	(3)	12	540
Chile	14	--	--	--	--	--	14	14
China	--	103	--	23	61	151	338	5,470
Czech Republic	--	--	--	--	--	(3)	(3)	64
France	--	--	--	(3)	--	1	1	15
Germany	--	--	--	24	6	2	31	517
Hong Kong	--	--	--	--	--	1	1	24
Hungary	--	--	--	--	--	(3)	(3)	6
India	--	--	--	--	1	(3)	1	25
Israel	--	--	--	32	--	(3)	32	311
Japan	--	--	--	24	--	2	26	187
Korea, Republic of	--	--	--	9	4	--	12	329
Mexico	--	--	--	--	--	--	--	12
Mongolia	--	--	--	--	--	--	--	230
Peru	31	--	--	--	--	--	31	429
Portugal	--	--	--	--	--	--	--	522
Russia	--	--	--	--	--	3	3	121
Rwanda	--	--	--	--	--	--	--	11
Singapore	--	--	--	3	--	1	4	33
South Africa	--	--	--	--	--	1	1	6
Spain	33	--	--	--	--	(3)	33	482
Sweden	--	--	--	--	--	(3)	(3)	7
Thailand	--	--	--	--	--	--	--	91
Uganda	--	--	--	--	--	--	--	20
United Kingdom	--	--	--	--	(3)	1	1	29
Vietnam	40	22	10	--	--	16	89	1,280
Other	--	--	--	--	(3)	(3)	(3)	14
Total	158	125	10	118	80	184	676	11,900
Total, January–December	3,640	2,020	206	1,370	1,690	2,950	11,900	XX

XX Not applicable. -- Zero.

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

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than ½ unit.

Note: Imports of waste and scrap in December 2011 totaled 195 metric tons, tungsten content, to give a year-to-date total of 1,370 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 5b
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other ²	Total
2011	3,640	2,020	206	1,370	1,690	2,950	11,900
2012, January:							
Austria	--	--	--	--	3	7	10
Bolivia	93	--	--	--	--	--	93
Brazil	15	--	--	--	--	--	15
Canada	--	--	--	14	8	--	22
China	--	240	4	37	81	165	527
Colombia	9	--	--	--	--	--	9
Germany	--	--	--	6	13	2	21
Israel	--	--	--	10	--	--	10
Korea, Republic of	--	--	--	41	--	(3)	41
Luxembourg	--	--	--	--	--	4	4
Peru	31	--	--	--	--	--	31
Portugal	94	--	--	--	--	--	94
Russia	--	--	--	--	--	3	3
Singapore	--	--	--	4	--	1	5
Spain	66	--	--	(3)	--	--	66
Thailand	11	--	--	--	--	--	11
Vietnam	22	--	--	--	--	--	22
Other	(3)	--	--	(3)	1	4	5
Total	340	240	4	113	107	185	989

XX Not applicable. -- Zero.

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

²Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

³Less than ½ unit.

Note: Imports of waste and scrap in January 2012 totaled 95 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 6a
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total	Total, year to date
2010	276	538	803	1,220	875	3,710	XX
2011:							
October	9	112	49	105	78	354	3,650
November	18	20	54	115	126	334	3,980
December:							
Australia	--	--	(4)	(4)	(4)	(4)	33
Austria	--	--	11	20	15	46	236
Belgium	--	--	--	(4)	--	(4)	127
Brazil	1	--	2	--	--	3	69
Canada	--	--	12	20	46	78	779
Chile	--	--	(4)	(4)	--	(4)	9
China	73	--	5	5	1	83	176
Costa Rica	--	--	--	--	1	1	13
Czech Republic	--	--	(4)	--	2	2	26
Denmark	--	--	--	--	--	--	6
France	--	--	--	--	(4)	(4)	82
Germany	--	37	14	33	5	89	1,040
Hong Kong	--	--	(4)	(4)	--	(4)	10
Hungary	--	30	--	--	5	35	163
India	--	--	1	--	2	3	50
Indonesia	--	--	(4)	--	--	(4)	39
Israel	--	--	--	--	(4)	(4)	20
Italy	--	(4)	(4)	1	(4)	1	14
Japan	--	--	(4)	3	2	5	211
Korea, Republic of	--	--	(4)	(4)	3	4	29
Luxembourg	--	--	--	--	6	6	6
Malaysia	--	--	--	--	1	1	11
Mexico	--	--	(4)	(4)	5	6	128
Netherlands	31	--	--	--	--	31	47
Peru	--	--	--	2	--	2	24
Philippines	--	--	--	--	(4)	(4)	17
Saudi Arabia	--	--	17	--	2	19	109
Singapore	--	--	1	(4)	3	4	69
South Africa	--	--	2	1	--	2	34
Sweden	--	--	--	--	--	--	44
Switzerland	--	18	--	--	--	18	216
Taiwan	--	--	(4)	5	4	9	132
Thailand	--	--	(4)	--	(4)	(4)	6
Turkey	--	--	2	--	24	26	38
United Kingdom	--	--	(4)	4	2	6	392
Venezuela	--	--	(4)	2	(4)	3	24
Vietnam	--	--	--	(4)	(4)	(4)	8
Other	--	1	2	1	2	6	35
Total	105	85	69	99	132	490	4,470
Total, January–December	169	977	686	1,250	1,390	4,470	XX

XX Not applicable. -- Zero.

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

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Estimated exports of waste and scrap in December 2011 totaled 315 metric tons, tungsten content, to give a year total of 2,660 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 6b
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates ²	Ammonium tungstates	Metal powder ²	Tungsten carbide powder	Other ³	Total
2011	169	977	686	1,250	1,390	4,470
2012, January:						
Argentina	--	--	(4)	(4)	3	4
Austria	--	--	--	16	1	16
Brazil	1	--	1	(4)	(4)	3
Canada	--	--	7	7	75	90
China	--	--	1	4	5	10
Czech Republic	--	--	--	--	3	3
Germany	--	37	12	7	5	61
India	--	--	2	(4)	1	3
Indonesia	--	--	(4)	1	8	9
Ireland	--	--	--	3	--	3
Japan	--	--	2	3	6	11
Peru	--	--	(4)	3	--	3
Saudi Arabia	--	--	17	--	--	17
Taiwan	--	--	--	6	2	9
Vietnam	--	--	--	--	3	3
United Kingdom	--	--	--	30	(4)	30
Other	--	1	7	7	8	23
Total	1	38	50	87	120	296

XX Not applicable. -- Zero.

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

²Tungsten content estimated from reported gross weight.

³Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

⁴Less than ½ unit.

Note: Estimated exports of waste and scrap in January 2012 totaled 223 metric tons, tungsten content.

Source: U.S. Census Bureau.