

Mineral Industry Surveys

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TUNGSTEN IN MARCH 2012

The following comparisons are based on preliminary data. U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 17% less during January through March 2012 than net production during the same period in 2011.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in January through March 2012 was 5% less than that consumed during the same period in 2011. These materials were used to make alloys, cemented carbides, mill products, and other products, such as catalysts and pigments.

Data for U.S. imports and exports of tungsten for March 2012 are published in this issue.

Prices

Selected prices from Metal Bulletin for March 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—\$430/metric ton unit WO₃ (\$390/short ton unit WO₃)
High—\$441/metric ton unit WO₃ (\$400/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 ^p	Net production ^{p, 4}	Intermediate products		
	Reported consumption ^p	Imports for consumption	Stocks, end of period Industry ^{p, 2}	U.S. Government ³			Reported consumption ^{p, 5}	Stocks, end of period Industry ^{p, 6}	U.S. Government ³
2011:									
March	W	388	W	17,000	(7)	775	999 ^r	693	171
April	W	283	W	17,000	(7)	736	1,080	612	171
May	W	469	W	15,900	685 ^r	717	1,050	605	171
June	W	259	W	15,900	1,140	745	1,280	653	171
July	W	432	W	15,900	630 ^r	578	968 ^r	686	171
August	W	277	W	15,800	577 ^r	469	951 ^r	686	160
September	W	181	W	15,800	(7)	602	947 ^r	653	160
October	W	283	W	15,800	(7)	636 ^r	946 ^r	762 ^r	125
November	W	304	W	15,800	(7)	543 ^r	942 ^r	676 ^r	125
December	W	158	W	15,800	(7)	559 ^r	930 ^r	682 ^r	125
January–December	W	3,640	W	15,800	9,520 ^r	7,790 ^r	12,100 ^r	682 ^r	125
2012:									
January	W	340	W	15,800	609 ^r	498 ^r	945 ^r	659 ^r	125
February	W	224	W	15,800	636 ^r	612 ^r	946 ^r	639 ^r	125
March	W	402	W	15,800	896	723	953	767	125
Total	W	967	W	15,800	2,140	1,830	2,840	767	125

^pPreliminary. ^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.

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 PRODUCTS^{p, 1}

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2011	2012			2011	2012	
		February ^r	March	January–March ⁴		February ^r	March
Metal powder	3,330	196	254	661	273	298	311
Tungsten carbide powder	4,460 ^r	416	469	1,170	410 ^r	342	456
Total	7,790 ^r	612	723	1,830	682 ^r	639	767

^pPreliminary. ^rRevised.

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."

⁴May include revisions to previously published data.

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

(Metric tons, tungsten content)

End use	2012		
	February	March	January–March ⁴
Steels	8 ^r	8	23
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	572	575	1,720
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	366 ^r	370	1,100
Total	946 ^r	953	2,840

^pPreliminary. ^rRevised. 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 MATERIALS^{P, 1}

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2011:						
March	10	W	570	W	6	999 ^r
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	968 ^r
August	10	W	570	W	6	951 ^r
September	10	W	567	W	6	947 ^r
October	10	W	567	W	6	946 ^r
November	10	W	564	W	6	942 ^r
December	10	W	563	W	6	930 ^r
January–December	118	W	6,810	W	74	12,100
2012:						
January	10	W	565	W	6	945 ^r
February	10	W	564	W	6	946 ^r
March	10	W	567	W	6	953
January–March	30	W	1,700	W	18	2,840
Stocks:						
2011:						
March	22	50	414	55 ^r	10	550 ^r
April	22	46	413	63 ^r	10	554 ^r
May	22	43	413	66 ^r	10	554 ^r
June	22	41	413	72 ^r	10	558 ^r
July	21	40	413	69 ^r	10	553 ^r
August	22	37	413	65 ^r	10	547 ^r
September	23	36	413	63 ^r	10	544 ^r
October	22	34	413	58 ^r	10	537 ^r
November	21	34	413	57 ^r	10	535 ^r
December	21	35	413	63 ^r	10	542 ^r
2012:						
January	21	35	413	61 ^r	10	541 ^r
February	21	35	413	62 ^r	10	541 ^r
March	W	35	413	59	10	W

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

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 5
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
2011	3,640	2,020	206	1,370	1,690	2,950	11,900	XX
2012:								
January	340	240	4	113	107	185	989	989
February	224	89	42	116	135	128	735	1,720
March:								
Austria	--	--	--	--	12	4	16	34
Belgium	--	--	--	--	2	(3)	2	4
Bolivia	152	--	--	--	--	--	152	339
Brazil	12	--	--	--	--	--	12	44
Canada	--	--	--	9	9	(3)	18	106
Chile	13	--	--	--	--	--	13	13
China	--	65	25	11	12	197	310	1,130
Colombia	13	--	--	--	--	--	13	23
Germany	29	--	--	27	18	7	81	151
India	--	--	--	--	1	1	2	3
Israel	--	--	--	19	1	(3)	20	61
Japan	--	--	--	2	--	2	4	11
Korea, Republic of	--	--	--	25	2	(3)	28	93
Luxembourg	--	--	--	--	12	--	12	16
Peru	41	--	--	--	--	--	41	82
Portugal	82	--	--	--	--	--	82	223
Russia	--	--	--	--	--	--	--	6
Singapore	--	--	--	--	--	(3)	(3)	12
Spain	49	--	--	(3)	--	--	49	115
Thailand	10	--	--	--	--	--	10	32
United Kingdom	--	--	--	--	(3)	(3)	(3)	4
Vietnam	--	--	11	7	--	--	18	103
Other	--	--	--	1	(3)	2	3	10
Total	402	65	36	101	71	214	889	2,610
January–March	967	393	83	330	313	527	2,610	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 March 2012 totaled 198 metric tons, tungsten content, to give a January–March 2012 total of 417 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 6
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
2011	169	977	686	1,250	1,390	4,470	XX
2012:							
January	1	38	50	87	120	296	296
February	1	39	75	109	155	380	676
March:							
Argentina	--	--	(4)	--	(4)	(4)	4
Australia	--	--	(4)	2	(4)	2	3
Austria	--	--	--	14	1	15	59
Brazil	2	--	1	3	2	7	27
Canada	--	--	12	9	49	69	245
China	1	--	2	3	2	9	33
Costa Rica	--	--	--	--	1	1	4
Czech Republic	--	--	--	--	3	3	7
France	--	--	--	(4)	(4)	(4)	22
Germany	--	--	16	5	2	24	146
Hong Kong	--	--	--	(4)	1	1	13
Hungary	--	29	--	--	1	29	29
India	--	2	1	(4)	3	5	17
Indonesia	--	--	--	(4)	16	16	27
Ireland	--	--	--	9	--	9	13
Israel	--	--	(4)	--	--	(4)	10
Italy	--	--	(4)	1	(4)	1	3
Japan	--	--	1	1	2	4	22
Korea, Republic of	--	--	(4)	(4)	2	2	4
Malaysia	--	--	(4)	--	1	1	4
Mexico	--	--	1	2	8	10	18
Peru	--	--	(4)	2	(4)	3	6
Saudi Arabia	--	--	--	(4)	(4)	(4)	46
Singapore	--	--	1	(4)	2	4	15
South Africa	--	--	1	2	--	3	5
Sweden	--	--	3	4	1	8	15
Taiwan	--	--	4	5	(4)	10	28
Thailand	--	--	--	--	2	2	8
Turkey	--	--	3	--	--	3	5
United Kingdom	--	--	(4)	27	(4)	27	88
Venezuela	--	--	--	4	--	4	10
Vietnam	13	--	--	--	(4)	13	16
Other	--	--	(4)	(4)	(4)	1	14
Total	15	30	47	96	100	288	964
January–March	17	107	173	292	376	964	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 March 2012 totaled 237 metric tons, tungsten content, to give a January–March 2012 total of 594 metric tons, tungsten content.

Source: U.S. Census Bureau.