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Mineral Industry Surveys

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TUNGSTEN IN MAY 2011

Total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 13% higher during January through May 2011 than net production during the same period in 2010. Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through May 2011 was 14% higher than consumption during the same period in 2010. 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 January through April 2011 and full year 2010 totals by material are published in this issue.

Prices

Selected prices from Metal Bulletin for May 2011 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 (WO_3) 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—$336/metric ton unit WO_3 ($305/short ton unit WO_3)
High—$341/metric ton unit WO_3 ($309/short ton unit WO_3)

Concentrates:
Low—$140/metric ton unit WO_3 ($127/short ton unit WO_3)
High—$160/metric ton unit WO_3 ($145/short ton unit WO_3

TABLE 1

U.S. SALIENT TUNGSTEN STATISTICS[1]

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump-tion	Imports for consumption	Stocks, end of period			Net production[4]	Reported consump-tion[5]	Stocks, end of period	
			Industry[2]	U.S. Gov-ernment[3]				Industry[6]	U.S. Gov-ernment[3]
2010:									
May	(7)	160	W	17,700	431 r	743	903 r	745	169
June	(7)	246	W	17,700	415 r	756	959 r	708	169
July	(7)	221	W	17,000	(7)	667	929 r	689	169
August	(7)	366	W	17,000	(7)	788	935 r	704	169
September	(7)	172	W	17,000	506 r	752	898 r	762	171
October	(7)	246	W	17,000	366 r	728	854 r	828	171
November	(7)	236	W	17,000	(7)	700	865 r	804	171
December	(7)	214	W	17,000	(7)	680	876 r	669	171
January–December	4,840	2,740	W	17,000	5,800 r	8,310	10,800 r	669	171
2011:									
January	W	332	W	17,000	(8)	646	994 r	761	171
February	W	276	W	17,000	(8)	779	992 r	804	171
March	W	388	W	17,000	(8)	774	998 r	683	171
April	W	283	W	17,000	(8)	732	1,080 r	599	171
May	W	469	W	15,900	690	718	1,050	593	171
January–May	W	1,750	W	15,900	4,070	3,650	5,110	593	171

rRevised. W Withheld to avoid disclosing company proprietary data.

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

[2]Reported by consumers.

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

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

[5]Includes estimates and scrap.

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

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

[8]Withheld to avoid disclosing company proprietary data: included in "January–May."

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH[1]

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period[2]
2010:			
May	W	777	W
June	W	952	147
July	W	(3)	130
August	W	(3)	W
September	W	1,010	122
October	W	848	112
November	W	(3)	W
December	W	(3)	62
January–December	W	10,300	62
2011:			
January	W	(4)	W
February	W	(4)	W
March	W	(4)	W
April	W	(4)	W
May	W	841	W
January–May	W	4,150	W

W Withheld to avoid disclosing company proprietary data.

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

[2]Producers and consumers.

[3]Withheld to avoid disclosing company proprietary data; included in "January–December."

[4]Withheld to avoid disclosing company proprietary data; included in "January–May."

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS[1]

(Metric tons, tungsten content)

	Net production[2]				Stocks at end of period		
		2011				2011	
Product[3]	2010	April	May	January–May[4]	2010	April	May
Metal powder	4,100	380	320	1,710	341	303	316
Tungsten carbide powder	4,210	352	398	1,940	328	296	277
Total	8,310	732	718	3,650	669	599	593

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

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

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

[4]May include revisions to previously published data.

TABLE 4

U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE[1, 2, 3]

(Metric tons, tungsten content)

End use	2011		
	April	May	January–May[4]
Steels	6 r	6	30
Superalloys	W	W	W
Other alloys (excludes steels and superalloys)[5]	W	W	W
Cemented carbides[6]	573 r	579	2,880
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	499 r	466	2,200
Total	1,080 r	1,050	5,110

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

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

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

[3]Includes estimates.

[4]May include revisions to previously published data.

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

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

TABLE 5

U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS[1]

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials[2]	Total
Consumption:						
2010:						
May	10 r	W	489 r	W	6	903 r
June	10 r	W	492 r	W	6	959 r
July	10 r	W	491 r	W	6	929 r
August	10 r	W	492 r	W	6	935 r
September	10 r	W	491 r	W	6	898 r
October	10 r	W	493 r	W	6	854 r
November	9 r	W	493 r	W	6	865 r
December	10 r	W	491 r	W	6	876 r
January–December	119 r	W	5,890 r	W	75 r	10,800 r
2011:						
January	10 r	W	569 r	W	6	994 r
February	10 r	W	567 r	W	6	992 r
March	10 r	W	570 r	W	6	998 r
April	10 r	W	565 r	W	6	1,080 r
May	10	W	571	W	6	1,050
January–May	50	W	2,840	W	31	5,110
Stocks:						
2010:						
May	21 r	43 r	415	74 r	10	562 r
June	21 r	49 r	415	67 r	10	562 r
July	22 r	50 r	414	65 r	10	561 r
August	22 r	51 r	413	66 r	10	562 r
September	22 r	50 r	413	56 r	10	552 r
October	23 r	51 r	413	56 r	10	553 r
November	23 r	52 r	413	60 r	10	558 r
December	22 r	54 r	413	61 r	10	561 r
2011:						
January	22 r	51 r	413	67 r	10	562 r
February	22 r	52 r	413	63 r	10	560 r
March	22 r	50 r	414	54 r	10	549 r
April	22 r	46 r	413	61 r	10	552 r
May	22	43	413	65	10	553

rRevised. W Withheld to avoid disclosing company proprietary data.

[1]Includes estimates.

[2]Includes tungsten chemicals.

TABLE 6

U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY[1]

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	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:								
February	276	93	83	119	152	191	914	2,010
March	388	147	16	100	132	136	919	2,930
April:								
Austria	--	--	--	(3)	24	7	30	55
Belgium	--	--	--	--	6	--	6	8
Bolivia	79	--	--	--	--	--	79	251
Brazil	--	--	--	--	--	--	--	11
Canada	--	--	--	15	18	1	34	154
China	--	161	--	22	33	235	451	1,720
Czech Republic	--	--	--	--	8	12	20	21
France	--	--	--	--	--	1	1	7
Germany	--	22	--	18	20	4	64	198
India	--	--	--	--	--	2	2	6
Israel	--	--	--	21	6	--	27	81
Japan	--	(3)	--	11	--	2	14	112
Korea, Republic of	--	--	--	30	5	--	35	147
Mongolia	--	--	--	--	--	--	--	151
Peru	55	--	--	--	--	--	55	164
Portugal	52	--	--	--	--	--	52	218
Russia	--	--	--	--	--	3	3	6
Rwanda	--	--	--	--	--	--	--	11
Singapore	--	--	--	--	--	1	1	7
Spain	49	--	--	--	--	(3)	49	167
Thailand	13	--	--	--	--	--	13	25
Uganda	10	--	--	--	--	--	10	10
United Kingdom	--	--	--	--	--	8	8	9
Vietnam	26	--	--	--	47	--	73	408
Other	--	--	--	--	--	2	2	9
Total	283	184	--	118	167	278	1,030	3,960
January–April	1,280	645	134	437	570	894	3,960	XX

XX Not applicable. -- Zero.

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

[2]Includes 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.

[3]Less than ½ unit.

Note: Imports of waste and scrap in April 2011 totaled 141 metric tons, tungsten content, to give a year-to-date total of 388 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7

U.S. EXPORTS OF TUNGSTEN, BY COUNTRY[1]

(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:							
February	3	45	34	86	81	250	641
March	3	88	56	126	125	398	1,040
April:							
Australia	--	--	--	6	(4)	6	17
Austria	--	--	4	31	(4)	35	107
Belgium	--	--	--	(4)	1	1	125
Brazil	2	--	1	--	9	12	32
Canada	--	--	9	14	23	46	190
Chile	--	--	(4)	(4)	--	1	3
China	--	--	2	2	(4)	4	28
Costa Rica	--	--	--	--	1	1	6
Czech Republic	--	--	(4)	1	1	2	7
France	--	--	17	(4)	(4)	17	18
Germany	--	27	17	21	16	80	331
Hong Kong	--	--	2	1	--	3	5
India	1	--	2	(4)	2	5	12
Indonesia	--	--	--	(4)	(4)	(4)	6
Israel	--	--	(4)	--	--	(4)	12
Japan	--	--	1	1	14	16	83
Korea, Republic of	--	--	1	(4)	(4)	1	4
Malaysia	(4)	--	(4)	--	2	3	7
Mexico	--	--	1	1	8	10	42
Netherlands	--	--	1	--	--	1	11
Peru	--	--	--	(4)	--	(4)	3
Saudi Arabia	--	--	2	9	(4)	12	19
Singapore	--	--	1	1	3	5	20
South Africa	--	--	1	2	(4)	3	8
Switzerland	--	--	1	--	(4)	1	74
Taiwan	--	--	3	2	(4)	5	22
United Kingdom	--	(4)	(4)	47	8	54	148
Venezuela	--	--	1	4	--	4	8
Other	--	--	(4)	2	1	4	23
Total	3	27	67	145	91	332	1,370
January–April	12	284	188	419	469	1,370	XX

XX Not applicable. -- Zero.

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

[2]Tungsten content estimated from reported gross weight.

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

[4]Less than ½ unit.

Note: Estimated exports of waste and scrap in April 2011 totaled 132 metric tons, tungsten content, to give a year-to-date total of 695 metric tons, tungsten content.

Source: U.S. Census Bureau.