

Mineral Industry Surveys

For information, contact:

Kim B. Shedd, Tungsten Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4974, Fax: (703) 648-7757
E-mail: ksheddd@usgs.gov

Susan M. Weaver (Data)
Telephone: (703) 648-7977
Fax: (703) 648-7975
E-mail: sweaver@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

TUNGSTEN IN NOVEMBER 2010

The following comparisons are based on preliminary data. U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 61% more during January through November 2010 than net production during the same period in 2009, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through November 2010 was 43% more than consumption during the same period in 2009. 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 October 2010 and full year 2009 totals by material are published in this issue.

Prices

Selected prices from Metal Bulletin for November 2010 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—\$261/metric ton unit WO₃ (\$237/short ton unit WO₃)
High—\$268/metric ton unit WO₃ (\$243/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 consump- tion	Imports for consumption	Stocks, end of period Industry ²	U.S. Gov- ernment ³		Net production ⁴	Reported consump- tion ⁵	Stocks, end of period Industry ⁶	U.S. Gov- ernment ³
2009:									
November	W	150	W	19,300	371	575	687	727	172
December	W	306	W	19,000	356	589	703	682	171
January-December	W	3,590	XX	XX	3,460	5,300	7,180	XX	XX
2010:									
January	W	173	W	18,800	418	584	856	674	171
February	W	249	W	18,600	303	588	786	749	171
March	W	181	W	18,300	455	689	838	739	171
April	W	279	W	17,700	369	638	865	676	169
May	W	160	W	17,700	426	743	847	745	169
June	W	246	W	17,700	410	756	902	708	169
July	W	221	W	17,000	W	661	872	686	169
August	W	366	W	17,000	W	796	879	701	169
September	W	172	W	17,000	498	716	842 ^r	744	171
October	W	246	W	17,000	360	725 ^r	798 ^r	822	171
November	W	NA	W	17,000	W	700	809	804	171
Total	W	2,290	XX	XX	W	7,600	9,290	XX	XX

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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 (formerly Defense National Stockpile Center). 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.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2009:			
November	W	667	97
December	W	(3)	100
January-December	W	6,860	XX
2010:			
January	W	829	185
February	W	761	173
March	W	822	124
April	W	929	W
May	W	777	W
June	W	952	147
July	W	W	146
August	W	W	W
September	W	1,010	118
October	W	864 ^r	111
November	W	W	W
Total	W	W	XX

^rRevised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

²Producers and consumers.

³Withheld to avoid disclosing company proprietary data; included in "January-December."

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2010				2009	2010	
	2009	October	November	Year to date ⁴		October	November
Metal powder	2,880	357 ^r	301	3,750	379	533	481
Tungsten carbide powder	2,420	369	399	3,850	304	289	323
Total	5,300	725 ^r	700	7,600	682	822	804

^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 prior months.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE^{1, 2, 3}

(Metric tons, tungsten content)

End use	2010		
	October	November	Year to date ⁴
Steels	21	20	226
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	449	450	4,920
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	328 ^r	339	4,150
Total	798 ^r	809	9,290

^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 prior months.

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 5
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:						
2009:						
November	20	W	332	W	6	687
December	20	W	331	W	6	703
January-December	238	W	3,980	W	74	7,180
2010:						
January	20	W	438	W	6	856
February	20	W	437	W	6	786
March	20	W	438	W	6	838
April	20	W	440	W	6	865
May	21	W	437	W	8	847
June	20	W	441	W	9	902
July	20	W	439	W	9	872
August	20	W	440	W	8	879
September	20	W	440	W	11	842 ^r
October	20	W	441	W	9	798 ^r
November	20	W	442	W	9	809
Total	222	W	4,830	W	89	9,290
Stocks:						
2009:						
November	15	25	387	57	10	493
December	15	24	387	47	10	484
2010:						
January	15	24	387	46	10	482
February	15	24	387	50	10	485
March	15	23	387	49	10	484
April	15	25	387	57	10	494
May	15	24	387	53	21	500
June	15	28	387	49	18	498
July	15	29	386	51	15	495
August	16	28	386	54	13	496
September	16	26	386	46	10	484
October	17	26	386	45	11	484
November	16	25	386	48	12	487

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

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
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	Total, year to date
2009	3,590	2,540	46	837	753	1,360	9,120	XX
2010:								
August	366	247	8	124	101	164	1,010	6,980
September	172	401	11	112	189	316	1,200	8,180
October:								
Australia	--	--	--	--	--	--	--	7
Austria	--	--	--	--	--	6	6	66
Belgium	--	--	--	--	(3)	(3)	1	43
Bolivia	43	--	--	--	--	--	43	796
Canada	--	--	--	5	11	--	17	136
China	--	202	8	18	29	225	481	4,980
Czech Republic	--	--	--	--	22	(3)	23	45
France	--	--	--	--	(3)	(3)	(3)	7
Germany	(3)	4	--	6	12	3	25	366
Hong Kong	--	--	--	--	--	(3)	(3)	55
Hungary	--	--	--	--	--	1	1	7
India	--	--	--	--	(3)	(3)	(3)	8
Ireland	--	--	--	--	--	--	--	62
Israel	--	--	--	52	16	(3)	68	456
Japan	--	--	--	5	--	2	6	53
Korea, Republic of	--	--	--	44	3	--	48	337
Luxembourg	--	--	--	--	--	(3)	(3)	5
Mexico	--	--	--	--	--	--	--	14
Mongolia	--	--	--	--	--	--	--	19
Netherlands	--	--	--	--	--	(3)	(3)	16
Peru	36	--	--	--	--	--	36	441
Portugal	62	--	--	--	--	--	62	541
Russia	--	--	--	--	--	3	3	8
Rwanda	12	--	--	--	--	--	12	65
Singapore	--	--	--	--	--	3	3	19
South Africa	--	--	--	--	--	--	--	43
Spain	20	--	--	--	--	--	20	159
Sweden	--	--	--	--	6	1	8	45
Taiwan	--	--	--	--	--	(3)	(3)	16
Thailand	--	--	--	--	--	--	--	78
Uganda	10	--	--	--	--	--	10	84
United Kingdom	--	--	--	--	(3)	(3)	(3)	41
Vietnam	62	--	--	--	47	--	109	143
Other	--	--	--	--	(3)	(3)	(3)	(3)
Total	246	206	8	130	149	244	983	9,160
Total, year to date	2,290	2,160	179	1,120	1,310	2,110	9,160	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 October 2010 totaled 124 metric tons, tungsten content, to give a year-to-date total of 1,280 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
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
2009	38	375	360	469	543	1,790	XX
2010:							
August	2	76	45	152	70	344	2,480
September	9	69	48	102	87	315	2,800
October:							
Argentina	--	--	--	--	(4)	(4)	4
Australia	--	--	(4)	--	(4)	(4)	34
Austria	--	--	--	30	--	30	81
Belgium	--	--	--	--	1	1	112
Brazil	--	--	1	7	(4)	9	49
Canada	--	--	9	7	22	38	348
Chile	1	--	(4)	--	--	1	5
China	--	--	5	8	(4)	13	58
Colombia	--	--	(4)	--	1	1	9
Costa Rica	--	--	--	--	1	1	4
Czech Republic	--	--	--	--	3	3	42
France	--	--	(4)	13	2	15	39
Germany	(4)	45	34	7	4	91	1,440
Hong Kong	--	--	--	1	(4)	1	14
Hungary	--	--	--	--	2	2	59
India	--	--	1	(4)	(4)	1	42
Indonesia	--	--	--	(4)	7	7	27
Ireland	--	--	--	--	--	--	31
Israel	--	--	--	--	--	--	5
Italy	--	--	(4)	(4)	--	(4)	4
Japan	--	--	1	(4)	2	3	47
Korea, Republic of	--	--	(4)	(4)	(4)	(4)	11
Malaysia	1	--	--	--	1	2	7
Mexico	--	--	1	1	5	6	64
Netherlands	--	1	--	--	(4)	1	51
Peru	--	--	--	--	--	--	7
Saudi Arabia	--	--	5	41	--	45	53
Singapore	--	--	1	1	2	4	30
South Africa	--	--	2	12	--	13	80
Spain	--	--	--	--	--	--	6
Sweden	--	--	--	--	1	1	23
Switzerland	--	2	2	--	--	4	34
Taiwan	--	--	2	--	(4)	2	68
Thailand	--	--	--	(4)	--	(4)	3
United Kingdom	--	--	(4)	48	6	54	208
Venezuela	--	--	(4)	1	(4)	2	27
Vietnam	--	--	--	--	--	--	8
Other	--	--	1	1	1	2	18
Total	2	48	66	176	61	353	3,150
Total, year to date	269	477	689	997	720	3,150	XX

See footnotes at end of table.

TABLE 7—Continued.
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

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 October 2010 totaled 104 metric tons, tungsten content, to give a year-to-date total of 571 metric tons, tungsten content.

Source: U.S. Census Bureau.