

# Mineral Industry Surveys

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**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

Robin Kaiser (Data)  
Telephone: (703) 648-7948  
Fax: (703) 648-7792  
E-mail: rkaiser@usgs.gov

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

## TUNGSTEN IN DECEMBER 2012

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 18% less in 2012 than net production in 2011.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in 2012 was slightly less than that consumed 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 December 2012 are published in this issue.

### Prices

Prices for December 2012 were sourced from Platt's Metals Week. The prices listed below in dollars per metric ton unit were converted from short-ton-unit prices and rounded to the nearest dollar.

Ammonium paratungstate, U.S. free market:

Low—\$435/metric ton unit  $WO_3$  (\$395/short ton unit  $WO_3$ )  
High—\$463/metric ton unit  $WO_3$  (\$420/short ton unit  $WO_3$ )

Concentrates:

Low—\$353/metric ton unit  $WO_3$  (\$320/short ton unit  $WO_3$ )  
High—\$364/metric ton unit  $WO_3$  (\$330/short ton unit  $WO_3$ )

TABLE 1  
U.S. SALIENT TUNGSTEN STATISTICS<sup>1</sup>

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption <sup>p</sup>	Net production <sup>p,4</sup>	Intermediate products				
	Reported consumption <sup>p</sup>	Imports for consumption	Stocks, end of period				Reported consumption <sup>p,5</sup>	Stocks, end of period			U.S. Government <sup>3</sup>
			Industry <sup>p,2</sup>	U.S. Government <sup>3</sup>				Consumer <sup>p,5</sup>	Producer <sup>p,6</sup>	Industry	
2011:											
December	W	158	W	15,800	(7)	559	825	567	682	125	
January–December	W	3,640	W	15,800	9,530	7,790	11,300	567	682	125	
2012:											
January	W	340	W	15,800	614	498	968 <sup>r</sup>	568	659	125	
February	W	224	W	15,800	640	612	942 <sup>r</sup>	566	639	125	
March	W	402	W	15,800	898	723	986 <sup>r</sup>	W	767	125	
April	W	318	W	15,800	654	647	1,060 <sup>r</sup>	W	734	125	
May	W	276	W	15,800	(8)	596	1,020 <sup>r</sup>	W	683	125	
June	W	269	W	15,800	(8)	501	831 <sup>r</sup>	W	742	125	
July	W	301	W	15,800	(8)	490	891 <sup>r</sup>	W	723	125	
August	W	266	W	14,200	(8)	387	796 <sup>r</sup>	W	681	125	
September	W	239	W	14,200	(8)	585	989 <sup>r</sup>	W	723	121	
October	W	260	W	14,200	684	343	777 <sup>r</sup>	W	663	125	
November	W	327	W	14,100	473 <sup>r</sup>	485	894 <sup>r</sup>	W	679	125	
December	W	421	W	14,000	503	494	896	W	653	125	
January–December	W	3,650	W	14,000	8,190	6,360	11,000	W	653	125	

<sup>p</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data.

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

<sup>2</sup>Reported by consumers.

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

<sup>4</sup>Net production of tungsten metal powder and tungsten carbide powder.

<sup>5</sup>Data for ferrotungsten, tungsten carbide powder, tungsten chemicals, tungsten metal powder, and tungsten scrap reported by consumers. Includes estimates.

<sup>6</sup>Data for tungsten metal powder and tungsten carbide powder reported by producers. Includes estimates.

<sup>7</sup>Withheld to avoid disclosing company proprietary data; included in "January–December 2011."

<sup>8</sup>Withheld to avoid disclosing company proprietary data; included in "January–December 2012."

TABLE 2  
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS<sup>p, 1</sup>

(Metric tons, tungsten content)

Product <sup>3</sup>	Net production <sup>2</sup>				Stocks at end of period		
	2011	2012			2011	2012	
		November	December	January–December <sup>4</sup>		November	December
Metal powder	3,330	W	W	W	273	330	300
Tungsten carbide powder	4,460	W	W	W	410	349	353
Total	7,790	485	494	6,360	682	679	653

<sup>p</sup>Preliminary. W Withheld to avoid disclosing company proprietary data.

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

<sup>2</sup>Receipts plus gross production less quantity used to make other products in table.

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

<sup>4</sup>May include revisions to previously published data.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY<sup>1</sup>

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferrotungsten	Metal powder	Tungsten carbide powder	Other <sup>2</sup>	Total	Total, year to date
2011	3,640	2,020	206	1,370	1,690	2,950	11,900	XX
2012:								
October	260	158	26	130	99	192	864	8,560
November	327	85	52	116	74	106	760	9,320
December:								
Australia	--	--	--	--	--	--	--	22
Austria	--	--	--	--	--	4	4	125
Belgium	--	--	--	--	4	(3)	4	28
Bolivia	146	--	--	--	--	--	146	1,160
Brazil	6	--	--	--	--	(3)	6	138
Canada	94	--	--	9	2	(3)	106	538
Chile	--	--	--	--	--	--	--	13
China	--	79	26	59	6	180	351	4,750
Colombia	--	--	--	--	--	--	--	120
France	--	--	--	--	1	1	2	16
Germany	(3)	--	--	9	4	2	16	487
Hong Kong	--	--	--	--	--	--	--	20
Hungary	--	--	--	--	--	1	1	8
India	--	--	--	--	--	(3)	(3)	10
Israel	--	--	--	13	1	--	13	234
Japan	--	--	--	1	--	2	2	54
Korea, Republic of	--	--	--	21	4	(3)	25	342
Luxembourg	--	--	--	--	--	(3)	(3)	16
Mexico	10	--	--	--	--	--	10	19
Mongolia	--	--	--	--	--	--	--	40
Netherlands	--	--	--	--	--	--	--	4
Peru	--	--	--	--	--	--	--	293
Portugal	47	--	--	--	--	--	47	656
Russia	--	--	--	--	--	(3)	(3)	31
Rwanda	11	--	--	--	--	--	11	11
Singapore	--	--	--	3	--	4	7	78
Spain	56	--	--	--	--	--	56	548
Thailand	13	--	--	--	--	--	13	87
United Kingdom	38	--	--	(3)	(3)	6	44	66
Vietnam	--	--	18	--	--	3	20	278
Other	--	--	--	--	--	(3)	(3)	10
Total	421	79	44	115	22	204	885	10,200
January–December	3,650	1,500	316	1,230	1,240	2,280	10,200	XX

XX Not applicable. -- Zero.

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

<sup>2</sup>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.

<sup>3</sup>Less than ½ unit.

Note: Imports of waste and scrap in December 2012 totaled 57 metric tons, tungsten content, to give a January–December 2012 total of 1,500 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY<sup>1</sup>

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates <sup>2</sup>	Ammonium tungstates	Metal powder <sup>2</sup>	Tungsten carbide powder	Other <sup>3</sup>	Total	Total, year to date
2011	169	977	686	1,250	1,390	4,470	XX
2012:							
October	7	56	39	58	120	280	3,410
November	2	74	69	69	97	311	3,720
December:							
Australia	--	--	(4)	1	(4)	1	19
Austria	--	--	1	--	43	44	151
Brazil	(4)	--	(4)	--	8	8	90
Canada	--	--	6	4	26	36	860
China	106	--	(4)	22	2	130	272
Costa Rica	--	--	--	--	1	1	14
Czech Republic	--	--	--	(4)	1	1	18
France	--	--	1	--	(4)	1	48
Germany	4	45	7	10	6	72	846
Hong Kong	--	--	--	(4)	(4)	(4)	16
Hungary	--	--	--	--	--	--	56
India	--	2	2	--	3	8	88
Indonesia	--	--	--	--	15	15	76
Ireland	--	--	(4)	(4)	--	(4)	28
Israel	--	--	(4)	--	(4)	(4)	21
Italy	--	--	--	--	(4)	(4)	17
Japan	--	--	2	4	1	8	113
Korea, Republic of	--	--	2	(4)	(4)	2	20
Mexico	--	--	(4)	(4)	4	5	128
Netherlands	--	--	--	--	--	--	17
Panama	--	--	--	--	--	--	13
Saudi Arabia	--	--	--	3	(4)	3	162
Singapore	--	--	2	1	12	15	131
South Africa	--	--	1	1	--	1	13
Sweden	--	--	--	4	--	4	38
Switzerland	--	--	--	--	--	--	246
Taiwan	--	--	2	4	2	8	109
Thailand	--	--	(4)	(4)	3	3	28
Turkey	--	--	--	--	--	--	64
United Kingdom	--	--	(4)	3	(4)	4	247
Venezuela	--	--	--	1	1	2	36
Vietnam	--	--	--	--	(4)	(4)	27
Other	--	--	(4)	5	2	7	89
Total	110	47	28	63	131	378	4,100
January–December	203	833	637	878	1,550	4,100	XX

XX Not applicable. -- Zero.

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

<sup>2</sup>Tungsten content estimated from reported gross weight.

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

<sup>4</sup>Less than ½ unit.

Note: Estimated exports of waste and scrap in December 2012 totaled 184 metric tons, tungsten content, to give a January–December 2012 total of 2,630 metric tons, tungsten content.

Source: U.S. Census Bureau.