

Mineral Industry Surveys

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TUNGSTEN IN MARCH 2008

During the quarter ending March 31, 2008, total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 15% higher than production during the quarter ending December 31, 2007, and 5% higher than that produced during the quarter ending March 31, 2007, 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 the quarter ending March 31, 2008, was 13% higher than consumption during the quarter ending December 31, 2007, and 7% higher than that consumed during the quarter ending March 31, 2007. 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 February 2008 and full year 2007 totals by material are published in this issue.

Update

Selected prices from Metal Bulletin for April 1-30, 2008, 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—\$276/metric ton unit WO₃ (\$250/short ton unit WO₃)
High—\$281/metric ton unit WO₃ (\$255/short ton unit WO₃)

Concentrates:

Low—\$160/metric ton unit WO₃ (\$145/short ton unit WO₃)
High—\$170/metric ton unit WO₃ (\$154/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production ⁴	Reported consumption ⁵	Stocks, end of period	
			Industry ²	U.S. Government ³				Industry ⁶	U.S. Government ³
2007:									
March	W	420	W	22,200	425	857	984 ^r	809	266
April	W	152	W	22,200	378	784	1,020 ^r	746	266
May	W	558	W	19,200	244	676	945 ^r	763	266
June	W	359	W	22,100	424	719	956 ^r	810	266
July	W	344	W	21,400	325	545	769 ^r	697	266
August	W	315	W	21,400	309	688	949 ^r	800	268
September	W	344	W	21,300	256	831	1,030 ^r	780	268
October	W	299	W	21,300	494	609	826 ^r	794	268
November	W	315	W	21,200	348	654	917 ^r	745	235
December	W	189	W	21,200	283	697	908 ^r	825	235
January-December	W	3,880	XX	XX	4,230	8,360	11,100	XX	XX
2008:									
January	W	221	W	21,200	318	818	1,020 ^r	796	235
February	W	383	W	21,200	360	650	983 ^r	738	235
March	W	339	W	21,200	373	788	996	685	235
Total	W	943	XX	XX	1,050	2,260	3,000	XX	XX

¹Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Reported by consumers.

⁴Data from Defense National Stockpile Center. Data through June 2007 include material committed for sale pending shipment; data after June 2007 are uncommitted material only.

⁵Net production of tungsten metal powder and tungsten carbide powder.

⁶Includes estimates and scrap.

⁷Data 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
2007:			
March	W	1,140	37
April	W	(3)	101
May	W	(3)	110
June	W	1,230	94
July	W	(3)	W
August	W	1,050	W
September	W	1,100	W
October	W	1,010	W
November	W	958	W
December	W	(3)	83
January-December	W	12,000	XX
2008:			
January	W	1,250	73
February	W	1,220	36
March	W	1,130	W
Total	W	3,600	XX

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 "Total."

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2008				2008		
	2007	February	March	Year to date	2007	February	March
Metal powder	3,880	218	351	976	406	391	367
Tungsten carbide powder	4,480	432	437	1,280	419	348	318
Total	8,360	650	788	2,260	825	738	685

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

(Metric tons, tungsten content)

End use	2008		
	February	March	Year to date
Steels	22	22	65
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	508 ^r	511	1,530
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	453 ^r	463	1,400
Total	983 ^r	996	3,000

^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.

⁴Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁵Includes 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:						
2007:						
March	20	W	520 ^r	W	6	984 ^r
April	19	W	515 ^r	W	6	1,020 ^r
May	19	W	524 ^r	W	6	945 ^r
June	20	W	519 ^r	W	6	956 ^r
July	20	W	516 ^r	W	6	769 ^r
August	20	W	518 ^r	W	6	949 ^r
September	20	W	512 ^r	W	6	1,030 ^r
October	20	W	516 ^r	W	6	826 ^r
November	20	W	512 ^r	W	6	917 ^r
December	20	W	505 ^r	W	6	908 ^r
January-December	236	W	6,200 ^r	W	72	11,100 ^r
2008:						
January	19	W	518 ^r	W	6	1,020 ^r
February	19	W	516 ^r	W	6	983 ^r
March	19	W	519	W	6	996
Total	58	W	1,550	W	18	3,000
Stocks:						
2007:						
March	19	27	398	34	9	487
April	18	27	405	32	9	491
May	18	27	405	29	9	488
June	17	27	403	29	9	483
July	17	27	402	23	9	478
August	16	27	395	23	9	468
September	14	27	624	23	9	696
October	16	27	405	23	9	479
November	15	27	401	23	9	474
December	14	27	398	25	9	472
2008:						
January	16	27	399	30	9	480
February	15	27	395	29	9	474
March	17	26	397	30	9	478

^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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2007	3,880	2,700	357	1,480	1,450	1,670	11,500	XX
2008:								
January	221	118	67	72	153	176	807	XX
February:								
Austria	--	--	--	--	--	2	2	5
Belgium	--	--	--	--	(3)	1	1	2
Bolivia	82	--	--	--	--	--	82	193
Brazil	21	--	--	--	--	--	21	40
Canada	116	--	--	(3)	31	--	147	192
China	--	127	71	16	84	69	366	800
Czech Republic	--	--	--	11	--	(3)	11	11
France	--	--	--	--	--	(3)	(3)	1
Germany	--	(3)	--	15	18	10	43	79
Hong Kong	--	--	--	--	--	(3)	(3)	9
India	--	--	--	--	(3)	2	2	6
Israel	--	--	--	45	2	1	47	70
Japan	--	--	--	2	--	2	4	5
Korea, Republic of	--	--	--	9	1	(3)	10	18
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	--	--	1	1	2
Peru	54	--	--	--	--	--	54	64
Portugal	72	--	--	--	--	--	72	103
Russia	--	--	--	--	--	16	16	16
Rwanda	23	--	--	--	--	--	23	23
Singapore	--	--	--	--	--	2	2	4
Sweden	--	--	--	--	--	(3)	(3)	44
Thailand	15	--	--	--	--	--	15	30
Other	--	--	--	(3)	--	3	3	4
Total	383	127	71	97	136	108	923	1,730
Total, year to date	604	245	138	169	289	285	1,730	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 1/2 unit.

Note: Imports of waste and scrap in February 2008 totaled 98 metric tons, tungsten content, to give a year-to-date total of 135 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
2007	109	731	1,050	1,280	1,270	4,440	XX
2008:							
January	(4)	82	93	109	74	358	XX
February:							
Australia	--	--	(4)	(4)	2	2	7
Austria	--	--	--	27	--	27	39
Brazil	--	--	2	(4)	6	9	13
Canada	--	--	5	9	18	32	66
Chile	--	--	--	--	--	--	1
China	3	--	2	(4)	8	12	14
Czech Republic	--	--	--	--	1	1	3
France	--	--	1	38	--	39	91
Germany	--	66	51	33	16	167	295
Hungary	--	--	--	--	(4)	(4)	4
India	--	--	(4)	(4)	2	2	7
Ireland	--	--	--	--	--	--	6
Italy	--	--	1	--	1	2	7
Japan	--	--	(4)	10	5	15	23
Korea, Republic of	--	--	(4)	--	(4)	(4)	1
Malaysia	--	--	--	(4)	(4)	(4)	1
Mexico	--	--	43	(4)	2	45	67
Singapore	--	--	4	(4)	(4)	4	16
South Africa	--	--	--	4	--	4	7
Sweden	--	--	--	--	(4)	(4)	1
Switzerland	--	--	2	--	1	2	2
Taiwan	--	--	2	2	--	3	13
United Kingdom	--	--	2	19	5	25	55
Venezuela	--	--	--	--	--	--	11
Other	--	--	1	1	1	3	6
Total	3	66	115	144	68	396	754
Total, year to date	3	148	208	253	142	754	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 February 2008 totaled 133 metric tons, tungsten content, to give a year-to-date total of 235 metric tons, tungsten content.

Source: U.S. Census Bureau.