

Mineral Industry Surveys

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MOLYBDENUM IN DECEMBER 2012

Domestic production of molybdenum (Mo) in concentrate in December 2012 was 6% less than that of the previous month and slightly more than December 2011 production. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 8,900 metric tons (t) at the beginning of 2012 and about 8,400 t at the end of December 2012.

According to Ryan's Notes, the December monthly average price range for U.S. ferromolybdenum (FeMo) was \$12.443 to \$12.607 per pound of molybdenum content, compared with \$12.363 to \$12.688 in November. European FeMo monthly averages ranged from \$28.429 to \$28.971 per kilogram (kg) of molybdenum content in December compared with \$26.788 to \$27.263 per kg in November. In December, worldwide molybdenum oxide (MoO₃) prices ranged from \$11.257 to \$11.500 per pound compared with \$10.813 to \$11.088 per pound in November.

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, U.S.

consumption by end use, and consumer stocks of molybdenum material in November and December 2011. Export data for October and November 2011 and import data for November 2011 are also included.

According to the National Statistics Institute of Chile (INE), Chilean molybdenum production in December decreased 25% to 2,008 t compared with December 2011 production. Molybdenum production in November 2012 also decreased 28% to 2,790 t of molybdenum compared with November 2011 production. According to INE, total molybdenum production in Chile in 2012 was 30,155 t of molybdenum, 17% less than 2011 molybdenum production (Metal-Pages, 2013)

Reference Cited

Metal-Pages, 2013, Chile molybdenum output down 25% in December: Metal-Pages, February 4. (Accessed March 1, 2013, via <http://www.metal-pages.com/>)

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2012			
	2011	November	December	January– December
Production	63,700	4,690	4,430	56,100
Shipments: ²				
Domestic	W	1,540	1,490	17,900
Export	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

¹Data are rounded to no more than three significant digits.

²As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM
PRODUCTS

(Metric tons, contained molybdenum)

	2012			
	2011	November	December	January– December
Gross production	W	W	W	W
Internal consumption ¹	W	W	W	W
Gross shipments	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

¹Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2012:						
November:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,380 ^r	--	--	--	7,380 ^r
Stainless and heat-resisting	162,000	57,500	--	(3)	6,510	226,000
Full alloy	244,000	231,000	--	--	W	475,000
Tool	W	W	--	--	--	W
Total	405,000	296,000	--	--	6,510	708,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	96,000	96,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	292	1,200	--	--	--	1,490
Mill products made from metal powder ⁴	--	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	--
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	144,000 ^r	40,000 ^r	62	--	331,000 ^r	515,000 ^r
Grand total	627,000 ^r	338,000 ^r	62	--	444,000 ^r	1,410,000
Stocks, November 30, 2012	393,000	306,000 ^r	2,070	(6)	(6)	1,580,000 ^r
December:						
Steel:						
Carbon	W	W	--	--	W	W
High-strength low-alloy	W	7,600	--	--	--	7,600
Stainless and heat-resisting	164,000	57,600	--	(3)	6,510	228,000
Full alloy	244,000	194,000	--	--	W	438,000
Tool	W	W	--	--	--	W
Total	408,000	260,000	--	--	6,510	674,000
Cast irons (gray, malleable, and ductile iron)	W	W	--	--	W	W
Superalloys	W	W	--	(3)	88,100	88,100
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	W	W
Other alloys	53	W	--	--	--	53
Mill products made from metal powder ⁴	W	--	--	--	W	W
Cemented carbides and related products ⁵	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	(3)	--	--	--
Catalysts	77,300	--	(3)	--	W	77,300
Other chemicals	--	--	--	--	--	--
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	142,000	43,500	257	--	331,000	517,000
Grand total	627,000	303,000	257	--	436,000	1,370,000
Stocks, December 31, 2012	384,000	292,000	2,040	(6)	(6)	1,570,000

See footnotes at end of table.

TABLE 3—Continued
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

¹Revised. W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified uses: Other" category. -- Zero.

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

²Includes calcium molybdate.

³Withheld to avoid disclosing company proprietary data; included in "Other, Miscellaneous and unspecified uses: Other" category.

⁴Includes ingot, wire, rod, and sheet.

⁶Includes construction, mining, oil and gas, metalworking machinery.

⁶Withheld to avoid disclosing company proprietary data; included in "Total."

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2011		2012		
	January– December	December	November	December	January– December
Australia	800	--	--	--	--
Austria	278,000	10,900	11,200	23,400	166,000
Azerbaijan	9,370	--	--	--	--
Belgium	6,620,000	465,000	231,000	150,000	6,190,000
Brazil	374,000	24,600	--	--	378,000
Canada	1,400,000	147,000	154,000	110,000	2,220,000
Chile	3,220,000	--	--	--	--
China	2,570,000	169,000	155,000	156,000	2,130,000
Colombia	--	--	--	--	7,190
Czech Republic	31	--	--	--	--
El Salvador	881	--	--	--	--
Finland	283,000	--	--	--	--
France	121,000	--	--	--	--
Germany	133,000	12,300	--	24,000	71,900
Hungary	--	--	--	--	997
India	901,000	48,000	96,900	125,000	660,000
Italy	37,300	--	--	--	--
Japan	4,150,000	294,000	569,000	301,000	3,780,000
Korea, Republic of	1,460,000	70,300	24,000	24,600	420,000
Luxembourg	24,800	--	--	--	--
Mexico	7,270,000	577,000	505,000	395,000	7,590,000
Netherlands	11,500,000	750,000	970,000	1,280,000	13,000,000
Peru	--	--	7,200	--	8,110
Philippines	--	--	--	--	8,170
South Africa	--	--	--	--	382,000
Spain	330	--	--	--	--
Sweden	145,000	--	--	--	--
Taiwan	40,500	--	--	--	6,040
Thailand	7,260	--	--	88	30,000
United Arab Emirates	12,600	--	--	--	--
United Kingdom	6,210,000	505,000	853,000	957,000	6,450,000
Venezuela	838	--	--	--	--
Vietnam	301,000	16,800	--	372	18,300
Total	47,100,000	3,090,000	3,570,000	3,550,000	43,500,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2011		2012		January– December
	January– December	December	November	December	
Argentina	--	--	--	--	26,200
Australia	497	--	--	--	223
Brazil	--	--	--	--	528
Canada	871,000	44,300	64,100	46,200	677,000
Colombia	119	119	--	105	224
Denmark	501	--	172	--	495
Mexico	47,800	--	22,900	57,800	188,000
Netherlands	293,000	24,100	--	--	76,600
Saudi Arabia	--	--	--	--	26,400
Turkey	116,000	--	--	--	--
Total	1,330,000	68,500	87,100	104,000	996,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	2012								
	January–December 2011			December			January–December		
	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates roasted	11,700,000	7,080,000	\$136,000	571,000	346,000	\$4,950	10,100,000	6,170,000	\$100,000
Ore and concentrates other	18,700,000	7,570,000	323,000	955,000	438,000	12,400	11,900,000	5,810,000	199,000
Molybdenum chemicals:									
Oxides and hydroxides	146,000	NA	3,820	60,000	NA	1,140	532,000	NA	10,600
Molybdates of ammonium	982,000	578,000	21,400	101,000	56,300	1,610	813,000	460,000	14,900
Molybdates (all others)	22,300	9,840	1,120	--	--	--	41,800	16,300	748
Molybdenum orange	328,000	NA	2,790	7,960	NA	70	355,000	NA	2,910
Ferromolybdenum	4,800,000	3,210,000	119,000	489,000	334,000	8,620	6,450,000	4,320,000	138,000
Molybdenum powders	281,000	264,000	13,600	39,000	36,800	1,440	408,000	362,000	16,700
Molybdenum unwrought	566,000	545,000	20,800	20,000	19,800	637	744,000	726,000	21,800
Molybdenum waste and scrap	748,000	700,000	27,400	89,000	84,100	2,750	971,000	925,000	31,400
Molybdenum wire	21,300	NA	3,230	2,760	NA	240	19,600	NA	2,760
Molybdenum other	903,000	NA	63,200	17,600	NA	1,520	507,000	NA	31,700
Total	39,200,000	XX	736,000	2,350,000	XX	35,300	32,900,000	XX	570,000

NA Not available. XX Not applicable. -- Zero.

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

²Customs value.

Source: U.S. Census Bureau.