

Mineral Industry Surveys

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VANADIUM IN OCTOBER 2010

Reported domestic consumption of vanadium in October 2010 was slightly more than that of the previous month, and was about 3% more than that of October 2009, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 278 metric tons (t) at the beginning of 2010 and 205 t at the end of October.

According to Ryan's Notes, U.S. ferrovanadium (FeV) prices ranged from \$13.889 to \$14.389 per pound of vanadium content in October, as compared with \$13.950 to \$14.450 in September. European FeV prices ranged from \$29.500 to \$30.500 per kilogram in October, as compared with \$29.875 to \$30.875 in September. Vanadium pentoxide (V₂O₅) prices ranged from \$6.200 to \$6.500 per pound in both September and October.

According to industry sources, the Chinese vanadium market continued to weaken in October as demand from its downstream consumers declined. China's recent increase in interest rates heavily hit the country's real estate market, decreasing demand for construction steel, thereby decreasing demand for vanadium, specifically 50% grade FeV (Metal-Pages, 2010).

Reference Cited

Metal-Pages, 2010, Weak demand drags down Chinese vanadium prices: Metal-Pages, October 27. (Accessed December 23, 2010, via <http://www.metal-pages.com/>.)

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2009		2010					
	Consumption	Stocks	September		October		January-October	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	4,030,000	227,000	337,000	164,000	350,000	159,000	3,460,000	XX
Vanadium-aluminum alloy	W	W	(3)	(3)	(3)	(3)	(3)	XX
Other ⁴	694,000	51,700	(3)	(3)	(3)	(3)	(3)	XX
Total	4,720,000	278,000	408,000	211,000	414,000	205,000	4,090,000	XX

W Withheld to avoid disclosing company proprietary data; included with "Other." XX Not applicable.

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

²Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

³Withheld to avoid disclosing company proprietary data; included in "Total."

⁴Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2009	2010		
		September	October	January-October
Steel:				
Carbon	610,000	50,500	55,300	545,000
High-strength low-alloy	1,540,000	W	W	W
Stainless and heat-resisting	119,000	5,140 ^r	5,110	110,000
Full alloy	1,880,000	164,000	172,000	1,630,000
Tool	417,000	W	W	W
Total steel	4,570,000	220,000	233,000	2,290,000
Superalloys	5,410	462	362	4,510
Miscellaneous and unspecified ²	151,000	W	W	W
Total consumption	4,720,000	408,000	414,000	4,090,000

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

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

²Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2009	282,000	\$979,000	21,700	\$940,000
2010:				
August	580,000	1,550,000	1,470	30,800
September, Mexico	1,220,000	2,670,000	--	--
Year to date	4,270,000	9,410,000	7,260	384,000
Exports:				
2009	11,200,000	27,800,000	22,700	1,040,000
2010:				
August	1,150,000	3,040,000	1,290	44,200
September:				
Canada	646,000	1,550,000	--	--
China	15,800	142,000	--	--
Germany	150	4,400	--	--
Israel	3,190	47,200	--	--
Malaysia	438	5,700	--	--
Mexico	238,000	743,000	--	--
Taiwan	13,200	38,900	--	--
United Kingdom	2,160	56,000	--	--
Total	919,000	2,590,000	--	--
Year to date	8,930,000	24,700,000	3,190	102,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2009	353,000	\$12,600,000	1,120,000	\$16,500,000	25,200	\$551,000
2010:						
August	189,000	5,550,000	434,000	5,890,000	8,390	235,000
September:						
Austria	15,500	481,000	--	--	8,370	224,000
Canada	58,400	1,740,000	--	--	--	--
China	--	--	30,500	658,000	--	--
Germany	398	21,300	--	--	--	--
Korea, Republic of	29,400	754,000	--	--	--	--
Russia	--	--	283,000	3,070,000	--	--
South Africa	--	--	91,200	1,930,000	26,700	494,000
Total	104,000	3,000,000	404,000	5,660,000	35,100	718,000
Year to date	1,110,000	34,100,000	3,150,000	42,400,000	51,800	1,230,000
Exports:						
2009	971,000	15,000,000	401,000	4,970,000	506,000	5,270,000
2010:						
August	37,500	864,000	3,350	69,100	106,000	1,020,000
September:						
Argentina	2,020	44,500	--	--	--	--
Austria	--	--	--	--	16,300	145,000
Belgium	--	--	1,980	39,300	--	--
Canada	50,400	1,270,000	--	--	--	--
Germany	--	--	2,000	15,100	--	--
India	30,000	475,000	--	--	--	--
Korea, Republic of	2,180	94,400	--	--	--	--
Mexico	20,900	459,000	--	--	--	--
Russia	--	--	--	--	131,000	1,160,000
Saudi Arabia	--	--	3,350	56,200	--	--
Singapore	--	--	225	9,320	--	--
Trinidad and Tobago	--	--	1,450	29,000	--	--
Total	105,000	2,340,000	9,000	149,000	147,000	1,310,000
Year to date	658,000	13,200,000	74,500	1,260,000	938,000	9,040,000

-- Zero.

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

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide, unless otherwise specified)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)		Slag, from the manufacture of iron and steel	
	Quantity	Value	Quantity	Value	Quantity	
					(gross weight)	Value
2009	791,000	\$12,300,000	615,000	\$1,260,000	80,500,000	\$2,610,000
2010:						
August	--	--	44,900	104,000	15,000,000	421,000
September:						
Belgium	44,900	265,000	--	--	--	--
Canada	--	--	32,300	44,500	143,000	85,600
Mexico	24,400	96,600	--	--	70,400	24,700
Total	69,300	362,000	32,300	44,500	214,000	110,000
Year to date	451,000	5,490,000	362,000	979,000	25,400,000	2,460,000

-- 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 MISCELLANEOUS VANADIUM CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2009	16,500	\$182,000	214,000	\$3,390,000
2010:				
August	1,180	24,000	36,900	747,000
September:				
China	4,780	46,000	--	--
Germany	--	--	6,730	227,000
India	--	--	90	4,750
Total	4,780	46,000	6,820	232,000
Year to date	28,600	387,000	120,000	2,960,000

-- Zero.

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

Source: U.S. Census Bureau.