

Mineral Industry Surveys

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SILICON IN JANUARY 2007

Preliminary data for January 2007 indicate that domestic production of silicon ferroalloys, on a gross-weight basis, decreased by 7% while net shipments increased slightly compared with those in December 2006, according to the U.S. Geological Survey. Stocks decreased by 4% compared with those at the end of the prior month. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys. Production-related statistics for silicon metal were concealed to avoid disclosing company proprietary data.

Based on a gross-weight comparison of December 2006 export data (table 2) with those of November 2006, ferrosilicon

exports decreased by 36%, owing primarily to a decrease in the "more than 55%" ferrosilicon trade category. Silicon metal exports decreased by 8%, owing primarily to a decrease in the "99.00%-99.99% silicon" silicon metal trade category.

Based on a gross-weight comparison of December 2006 import data (table 3) with those of the prior month, ferrosilicon imports increased by 39%, owing primarily to an increase in the "55%-80%, other" ferrosilicon trade category. Silicon metal imports increased by 38% during the same period, primarily because of an increase in the "99.00% to 99.99% silicon" metal trade category.

Prices, cents per pound, silicon content

	<u>50% Ferrosilicon¹</u>	<u>75% Ferrosilicon²</u>	<u>Silicon Metal²</u>
January 4	67.00-68.00	58.00-61.00	90.00-94.00
January 11	67.00-68.00	59.00-61.00	92.00-96.00
January 18	67.00-68.00	59.00-61.00	92.00-96.00
January 25	67.00-68.00	59.00-61.00	92.00-96.00

¹Source: Ryan's Notes, North American transaction price.

²Source: Platts Metals Week, dealer import price.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2007^{1, 2, 3}

(Metric tons)

Material	Gross production ⁴		Net shipments		Stocks,
	January	Year to date	January	Year to date	January 31
Ferrosilicon, all grades ^{5, 6}	20,800	20,800	18,500	18,500	25,200
Silicon metal, excludes semiconductor grades	W	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

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

²Includes U.S. Geological Survey estimates.

³Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

⁴Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁵Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

⁶Includes miscellaneous silicon alloys.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN DECEMBER 2006^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Canada	359	216	\$386,000	4,490	2,700	\$4,770,000
Colombia	--	--	--	74	52	113,000
El Salvador	--	--	--	5	3	12,000
Malaysia	--	--	--	33	25	46,800
Mexico	42	25	52,000	1,290	775	1,670,000
Total	402	241	438,000	5,890	3,550	6,610,000
Other ferrosilicon:						
Australia	3	2	3,320	3	2	3,320
Brazil	--	--	--	178	89	223,000
Canada	101	50	106,000	2,360	1,180	2,460,000
Colombia	--	--	--	80	37	115,000
Finland	--	--	--	8	4	8,510
Indonesia	--	--	--	21	10	25,100
Mexico	74	36	81,100	738	367	920,000
Spain	--	--	--	8	4	9,360
Switzerland	--	--	--	34	17	26,700
United Kingdom	--	--	--	3	1	4,200
Other (Korea, Republic of)	--	--	--	2	1	11,400
Total	177	88	191,000	3,440	1,710	3,810,000
Total ferrosilicon	579	329	629,000	9,330	5,260	10,400,000

See footnotes at end of table.

TABLE 2--Continued
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN DECEMBER 2006^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	202	XX	\$15,000,000	1,900	XX	\$179,000,000
Finland	--	--	--	103	XX	3,950,000
Germany	200	XX	21,300,000	2,310	XX	147,000,000
Italy	3	XX	405,000	137	XX	11,400,000
Japan	866	XX	65,300,000	7,710	XX	594,000,000
Korea, Republic of	24	XX	2,860,000	1,060	XX	90,600,000
Malaysia	19	XX	2,700,000	147	XX	21,000,000
Norway	171	XX	8,000,000	2,300	XX	107,000,000
Taiwan	34	XX	2,390,000	575	XX	43,900,000
United Kingdom	8	XX	1,130,000	125	XX	15,200,000
Other (50 countries)	8	XX	859,000	360	XX	24,900,000
Total	1,540	1,540^e	120,000,000	16,700	16,700^e	1,240,000,000
99.00% - 99.99% silicon:						
Belarus	--	--	--	34	34	37,700
Brazil	43	42	99,300	995	986	2,560,000
China	2	2	10,900	763	756	2,150,000
Germany	--	--	--	321	318	887,000
India	--	--	--	52	51	150,000
Italy	--	--	--	143	142	420,000
Japan	--	--	--	37	36	45,300
Sweden	--	--	--	34	34	47,700
Taiwan	--	--	--	113	112	330,000
United Kingdom	--	--	--	30	30	42,000
Other (13 countries)	20	20	54,700	136	135	235,000
Total	65	64	165,000	2,660	2,630	6,900,000
Other silicon:						
Canada	10	10	10,200	694	674	796,000
China	--	--	--	1,380	1,320	12,900,000
Germany	--	--	--	695	675	1,140,000
Hong Kong	--	--	--	105	101	925,000
Japan	173	168	392,000	1,460	1,400	5,710,000
Korea, Republic of	138	134	182,000	2,630	2,550	3,600,000
Mexico	3	3	9,580	116	113	370,000
Netherlands	54	52	263,000	298	288	2,390,000
United Kingdom	5	5	30,800	72	70	119,000
Venezuela	--	--	--	74	72	105,000
Other (16 countries)	44	43	104,000	224	216	790,000
Total	427	414	991,000	7,740	7,480	28,900,000
Total silicon metal	2,030	2,010	121,000,000	27,100	26,800	1,270,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

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

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN DECEMBER 2006^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55% - 80% silicon, over 3% Ca:						
Brazil	--	--	--	20	13	\$24,500
Canada	--	--	--	19	14	10,100
China	18	11	\$20,900	1,750	1,280	1,310,000
France	72	44	113,000	1,310	816	2,080,000
Total	90	55	133,000	3,100	2,120	3,430,000
55% - 80% silicon, Other:						
Brazil	130	97	139,000	3,950	2,950	3,270,000
Canada	860	645	928,000	12,700	9,590	12,100,000
China	18,600	14,000	14,400,000	128,000	96,100	87,700,000
France	228	163	363,000	3,820	2,640	6,860,000
Germany	45	34	187,000	522	389	2,380,000
Norway	150	110	225,000	7,230	5,360	9,150,000
Russia	6,460	4,930	5,170,000	56,600	42,400	40,400,000
South Africa	--	--	--	2,520	1,880	1,640,000
Ukraine	--	--	--	3,050	2,300	1,740,000
Venezuela	3,350	2,510	2,620,000	51,200	38,400	37,100,000
Other (6 countries)	295	218	316,000	786	570	1,080,000
Total	30,100	22,700	24,300,000	270,000	203,000	203,000,000
More than 90% silicon, China	--	--	--	21	19	6,300
Magnesium ferrosilicon:						
Argentina	--	--	--	2,380	1,060	2,230,000
Brazil	87	39	82,100	2,700	1,210	2,490,000
Canada	641	292	636,000	7,610	3,540	7,740,000
China	17	12	20,000	360	169	360,000
France	--	--	--	995	476	901,000
India	20	14	17,000	128	69	116,000
Netherlands	--	--	--	409	188	297,000
Norway	53	25	50,300	7,820	3,590	7,030,000
Russia	--	--	--	2,100	943	854,000
South Africa	--	--	--	123	59	145,000
Other (4 countries)	21	11	50,200	255	119	499,000
Total	839	394	855,000	24,900	11,400	22,700,000
Other ferrosilicon:						
Argentina	--	--	--	60	27	54,200
Brazil	--	--	--	155	26	143,000
Canada	790	207	692,000	8,900	2,350	7,660,000
China	--	--	--	20,000	4,110	6,140,000
France	38	17	36,600	151	84	201,000
India	--	--	--	71	31	59,700
Russia	27	14	20,800	27	14	20,800
United Kingdom	--	--	--	5	2	8,840
Total	855	237	749,000	29,400	6,650	14,300,000
Total ferrosilicon	31,900	23,400	26,100,000	327,000	223,000	244,000,000

See footnotes at end of table.

TABLE 3--Continued
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN DECEMBER 2006^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	(3)	XX	\$2,730	19	XX	\$33,400
China	15	XX	341,000	81	XX	3,990,000
France	--	--	--	32	XX	2,770,000
Germany	105	XX	9,900,000	881	XX	74,000,000
Italy	64	XX	10,000,000	350	XX	38,700,000
Japan	35	XX	3,310,000	344	XX	29,800,000
Korea, Republic of	8	XX	1,560,000	56	XX	12,600,000
Poland	--	--	--	13	XX	146,000
Russia	1	XX	125,000	11	XX	2,920,000
Taiwan	1	XX	44,600	10	XX	1,120,000
Other (19 countries)	4	XX	394,000	57	XX	2,140,000
Total	234	234^e	25,700,000	1,860	1,860^e	168,000,000
99.00% - 99.99% silicon:						
Australia	752	748	1,180,000	12,700	12,600	19,200,000
Brazil	3,510	3,480	5,310,000	46,500	46,100	69,700,000
Canada	1,760	1,750	2,920,000	18,700	18,500	30,300,000
China	5	(3)	6,360	88	76	125,000
Japan	--	--	--	10	(3)	12,800
Norway	627	622	1,140,000	7,300	7,230	13,900,000
Philippines	257	255	384,000	1,240	1,180	1,570,000
South Africa	4,980	4,940	7,490,000	38,400	38,100	59,800,000
Sweden	--	--	--	25	25	159,000
United Kingdom	--	--	--	467	30 ⁴	755,000
Other (2 countries)	(3)	(3)	3,170	(3)	(3)	12,400
Total	11,900	11,800	18,400,000	125,000	124,000	196,000,000
Other silicon:						
Australia	--	--	--	240	235	371,000
Brazil	720	713	1,080,000	8,010	7,700	11,100,000
Canada	613	601	957,000	8,860	8,400	12,500,000
Italy	--	--	--	18	18	23,700
Japan	--	--	--	105	13	138,000
Norway	--	--	--	1,060	1,040	1,660,000
Philippines	48	48	67,800	383	344	505,000
Sweden	69	20	95,000	422	106	591,000
Ukraine	--	--	--	1,870	1,840	2,240,000
United Kingdom	--	--	--	552	538	792,000
Other (5 countries)	92	13	100,000	142	56	223,000
Total	1,540	1,400	2,300,000	21,700	20,300	30,100,000
Total silicon metal	13,700	13,400	46,400,000	149,000	146,000	394,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date quantities (gross weight) of the top 10 countries.

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

³Less than ½ unit.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.