

Mineral Industry Surveys

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SILICON IN MARCH 2013

Data for March 2013 indicate that domestic production and net shipments of total silicon materials (ferrosilicon plus silicon metal), on a gross-weight basis, were 15% higher and slightly higher, respectively, than the revised amounts in February 2013. Ending stocks were 7% higher than those at the end of February 2013. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys. Total production and net shipments during the first 3 months of 2013 were 17% lower

and 19% lower, respectively, than those during the same period in 2012.

Production-related statistics for the individual categories of ferrosilicon and silicon metal were concealed to avoid disclosing company proprietary data. Totals for both categories are listed on table 1.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected silicon-containing materials in March 2013.

TABLE 1
 PRODUCTION, SHIPMENTS, AND STOCKS OF SILICON ALLOYS
 AND METAL IN THE UNITED STATES^{1,2,3}

(Metric tons, gross weight)

	Gross production ⁴	Net shipments	Producers' stocks, end of period
2012 ^f :			
January–December	499,000	351,000	48,600
January–March	128,000	90,700	39,700
March	44,200	33,900	39,700
April	38,500	30,600	40,000
May	41,400	32,700	40,300
June	42,400	33,500	36,200
July	43,000	26,600	39,600
August	42,700	32,200	36,500
September	45,800	29,200	39,600
October	43,100	27,200	43,200
November	37,100	24,900	45,500
December	36,900	23,400	48,600
2013:			
January ^f	35,000	25,400	47,600
February ^f	33,300	23,800	48,100
March	38,400	24,300	51,500
January–March	107,000	73,500	51,500

^fRevised.

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

²Includes ferrosilicon, miscellaneous silicon alloys, and silicon metal, excluding semiconductor and solar grades, except where noted.

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

⁴Ferrosilicon production includes material consumed in the production of miscellaneous silicon alloys.

TABLE 2
 PRICES FOR FERROSILICON AND SILICON METAL IN MARCH 2013

	High	Low	Average	Average low, mid, and high
Ferrosilicon:				
50% ferrosilicon ¹				
cents per pound of contained silicon	107.00	104.00	XX	104.33–105.33–106.33
75% ferrosilicon ²				
do.	97.00	94.00	95.56	XX
Silicon metal, 553 grade ³				
cents per pound	128.00	122.00	124.88	XX

do. Ditto. XX Not applicable.

¹Ryan's Notes, North American transaction price, duty paid, f.o.b. Pittsburgh, producing plant or Chicago/Pittsburg warehouse. Average price reported for price range.

²Platts Metals Week, in U.S. warehouse, U.S. origin and imported material. Average prices reported for all transactions during the month.

³Platts Metals Week, duty paid, delivered Midwest, U.S. spot and imported 553 grade silicon metal (minimum 98.50% silicon). Average price reported for all transactions during the month.

TABLE 3
U.S. EXPORTS OF FERROSILICON AND SILICON METAL
IN MARCH 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–March		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Brazil	--	--	--	2	1	\$7,400
Canada	640	384	\$729,000	1,630	978	2,130,000
Colombia	19	14	50,400	33	25	84,800
Germany	--	--	--	16	14	16,900
Japan	304	233	570,000	554	425	1,010,000
Malaysia	3	2	4,460	3	2	4,460
Mexico	98	65	213,000	438	287	979,000
Trinidad and Tobago	--	--	--	37	22	58,200
Turkey	15	11	42,800	15	11	42,800
Total	1,080	709	1,610,000	2,730	1,770	4,340,000
Other ferrosilicon:						
Belgium	20	10	37,100	163	69	318,000
Brazil	38	19	90,400	95	48	181,000
Canada	81	41	218,000	378	189	1,000,000
Italy	--	--	--	33	17	87,600
Korea, Republic of	--	--	--	108	54	137,000
Mexico	65	31	198,000	229	113	648,000
Netherlands	39	17	20,700	117	51	62,000
Thailand	19	9	49,400	76	35	205,000
Turkey	345	164	689,000	634	265	1,530,000
United Kingdom	56	16	86,000	154	41	293,000
Other (5 countries)	86	23	242,000	109	35	297,000
Total	749	330	1,630,000	2,100	917	4,760,000
Total ferrosilicon	1,830	1,040	3,240,000	4,820	2,680	9,100,000
Metal:						
More than 99.99% silicon:						
China	807	XX	22,600,000	3,070	XX	88,900,000
Denmark	3	XX	437,000	18	XX	1,050,000
Germany	10	XX	593,000	168	XX	7,430,000
Italy	50	XX	2,950,000	70	XX	4,540,000
Japan	763	XX	41,500,000	1,820	XX	108,000,000
Korea, Republic of	71	XX	4,870,000	275	XX	17,700,000
Malaysia	26	XX	3,610,000	65	XX	8,510,000
Norway	42	XX	1,150,000	87	XX	2,280,000
Taiwan	420	XX	17,900,000	719	XX	37,000,000
United Kingdom	4	XX	597,000	12	XX	1,660,000
Other (21 countries)	280	XX	7,620,000	290	XX	6,660,000
Total	2,480	2,480^e	104,000,000	6,590	6,590^e	283,000,000
99.00%–99.99% silicon:						
Belgium	--	--	--	5	5	7,000
El Salvador	--	--	--	4	4	5,300
India	2	2	6,200	2	2	6,200
Korea, Republic of	--	--	--	1,490	1,120	2,730,000
Mexico	--	--	--	3	3	7,560
Taiwan	1	1	7,640	1	1	7,640
Ukraine	--	--	--	2	2	2,550
Total	3	3	13,800	1,500	1,140	2,760,000

See footnotes at end of table.

TABLE 3—Continued
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL
 IN MARCH 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–March		
				Gross weight	Contained weight	Value
Metal—Continued:						
Other silicon:						
Austria	17	17	\$22,400	17	17	\$22,400
Belgium	60	58	81,200	72	70	96,800
Canada	10	10	26,800	40	39	116,000
China	3	3	20,000	29	28	162,000
Dominican Republic	--	--	--	5	5	6,320
Germany	--	--	--	103	100	189,000
Japan	--	--	--	104	101	137,000
Mexico	6	6	19,200	13	13	43,400
South Africa	3	3	30,500	5	5	49,900
Taiwan	--	--	--	31	30	84,700
Other (9 countries)	1	(3)	6,290	8	6	55,800
Total	100	97	206,000	427	414	963,000
Total silicon metal	2,580	2,580	104,000,000	8,520	8,140	287,000,000

⁶Estimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the "January–March" quantities (gross weight) of the leading countries.

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

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF FERROSILICON AND SILICON METAL
IN MARCH 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–March		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55%–80% silicon, more than 3% Ca:						
Brazil	200	154	\$277,000	200	154	\$277,000
Canada	1	(3)	3,760	1	(3)	3,760
China	308	229	417,000	329	245	445,000
France	17	11	46,400	29	19	73,800
Germany	--	--	--	19	12	47,500
Total	526	394	744,000	578	430	847,000
55–80% silicon, Other:						
Brazil	213	166	303,000	232	180	323,000
Canada	1,250	923	3,080,000	3,920	2,910	9,110,000
China	1,120	844	2,110,000	4,210	3,180	6,450,000
France	150	108	303,000	299	211	720,000
Germany	133	95	776,000	199	142	1,040,000
Iceland	55	42	80,500	1,550	1,210	2,050,000
Russia	--	--	--	23,600	17,900	31,500,000
South Africa	70	47	193,000	175	116	457,000
United Kingdom	14	10	95,300	355	268	710,000
Venezuela	5,570	4,270	8,030,000	9,270	7,050	13,400,000
Other (3 countries)	330	249	482,000	934	699	1,340,000
Total	8,900	6,750	15,500,000	44,700	33,800	67,200,000
80–90% ferrosilicon, Germany	11,700	9,640	11,200	11,700	9,640	11,200
Magnesium ferrosilicon:						
Argentina	117	47	180,000	234	99	361,000
Brazil	19	8	32,400	19	8	32,400
Canada	1,250	566	2,410,000	3,500	1,570	6,730,000
China	95	43	177,000	379	172	754,000
India	--	--	--	168	37	844,000
Norway	3	1	19,700	3	1	19,700
Total	1,480	665	2,820,000	4,310	1,890	8,750,000
Other ferrosilicon:						
Canada	892	355	878,000	2,880	1,030	3,280,000
China	--	--	--	13,300	2,090	7,560,000
Germany	3	1	14,100	7	3	36,200
India	280	123	236,000	465	205	401,000
Poland	--	--	--	38	15	55,500
Russia	--	--	--	3	2	6,320
Turkey	--	--	--	(3)	(3)	5,000
United Kingdom	36	6	49,600	36	6	49,600
Venezuela	--	--	--	54	30	53,000
Total	1,210	485	1,180,000	16,800	3,370	11,400,000
Total ferrosilicon	23,800	17,900	20,200,000	78,100	49,200	88,200,000

See footnotes at end of table.

TABLE 4—Continued
U.S. IMPORTS OF FERROSILICON AND SILICON METAL
IN MARCH 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–March		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	(3)	XX	\$3,950	23	XX	\$97,600
China	15	XX	529,000	32	XX	782,000
Denmark	(3)	XX	25,600	(3)	XX	186,000
Germany	88	XX	6,020,000	340	XX	21,900,000
Japan	1	XX	126,000	36	XX	1,900,000
Korea, Republic of	5	XX	525,000	69	XX	3,790,000
Malaysia	8	XX	842,000	18	XX	1,950,000
Slovenia	--	XX	--	5	XX	581,000
Taiwan	3	XX	70,000	8	XX	490,000
Thailand	--	XX	--	192	XX	442,000
Other (6 countries)	3	XX	127,000	6	XX	414,000
Total	123	123^c	8,270,000	729	729^c	32,500,000
99.00%–99.99% silicon:						
Australia	2,190	2,100	5,690,000	5,920	5,810	15,500,000
Brazil	615	610	1,630,000	4,110	4,080	11,300,000
Canada	1,020	1,010	2,940,000	3,370	3,350	9,670,000
Japan	--	--	--	35	1	44,900
Kazakhstan	140	139	322,000	280	278	644,000
Laos	1,440	1,430	3,570,000	1,460	1,450	3,620,000
Norway	336	334	1,290,000	2,430	2,410	10,000,000
South Africa	2,320	2,300	6,020,000	9,770	9,690	26,600,000
Spain	100	99	290,000	220	218	613,000
Thailand	1,200	1,190	2,750,000	3,120	3,090	7,450,000
Other (2 countries)	2	2	16,900	10	7	60,900
Total	9,360	9,210	24,500,000	30,700	30,400	85,600,000
Other silicon:						
Belgium	60	57	112,000	100	95	187,000
Brazil	131	129	291,000	814	805	2,020,000
Canada	575	567	1,670,000	3,010	2,960	8,840,000
China	41	41	90,900	82	80	177,000
France	--	--	--	396	387	975,000
Germany	1	1	2,600	2	2	18,800
Japan	113	1	196,000	223	105	454,000
Norway	41	40	45,000	60	58	91,800
United Kingdom	1	1	2,310	1	1	2,310
Total	964	836	2,410,000	4,680	4,490	12,800,000
Total silicon metal	10,400	10,200	35,200,000	36,100	35,600	131,000,000

^cEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the "January–March" quantities (gross weight) of the leading countries.

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

³Less than ½ unit.

Source: U.S. Census Bureau.