



Mineral Industry Surveys

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SILICON IN FEBRUARY 2013

Data for February 2013 indicate that domestic production and net shipments of total silicon materials (ferrosilicon plus silicon metal), on a gross-weight basis, were 10% higher and 8% higher, respectively, than the revised amounts in January 2013. Ending stocks were slightly higher than those at the end of January 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 February 2013 were 4% lower and 11% lower, respectively, than those in February 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 February 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:			
January–December	532,000	373,000	45,700
January–February	83,900	56,700	45,300
February	43,300	32,900	45,300
March	46,800	36,100	40,000
April	39,700	31,800	40,300
May	42,400	33,800	40,700
June	44,500	35,600	36,500
July	44,400	28,000	40,000
August	46,900	32,000	41,100
September	47,000	30,500	41,700
October	44,900	29,200	42,500
November	45,500	29,400	42,800
December	46,100	29,500	45,700
2013:			
January	38,100 ^r	27,200 ^r	45,900 ^r
February	41,800	29,300	47,100
January–February	79,900	56,500	47,100

^rRevised.

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 FEBRUARY 2013

	High	Low	Average	Average low, mid, and high
Ferrosilicon:				
50% ferrosilicon ¹	104.00	98.00	XX	98.75–100.13–101.50
75% ferrosilicon ²	94.00	92.00	93.38	XX
Silicon metal, 553 grade ³	127.00	120.00	124.00	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 FEBRUARY 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February		Value
				Gross weight	Contained weight	
Ferrosilicon:						
More than 55% silicon:						
Brazil	--	--	--	2	1	\$7,400
Canada	525	315	\$734,000	990	594	1,400,000
Colombia	14	10	34,400	14	10	34,400
Germany	--	--	--	16	14	16,900
Japan	154	117	257,000	251	193	443,000
Mexico	115	79	269,000	340	222	767,000
Trinidad and Tobago	--	--	--	37	22	58,200
Total	808	522	1,290,000	1,650	1,060	2,730,000
Other ferrosilicon:						
Belgium	3	1	6,120	143	59	281,000
Brazil	19	10	45,200	57	29	90,400
Canada	156	78	400,000	297	149	787,000
Italy	--	--	--	33	17	87,600
Korea, Republic of	--	--	--	108	54	137,000
Mexico	85	42	228,000	164	82	449,000
Netherlands	39	17	20,700	78	34	41,300
Thailand	57	26	155,000	57	26	155,000
Turkey	129	28	521,000	289	101	843,000
United Kingdom	98	25	207,000	98	25	207,000
Other (2 countries)	4	2	9,480	23	11	54,300
Total	590	229	1,590,000	1,350	587	3,130,000
Total ferrosilicon	1,400	751	2,890,000	3,000	1,640	5,860,000
Metal:						
More than 99.99% silicon:						
China	605	XX	18,400,000	2,260	XX	66,300,000
Denmark	--	XX	--	15	XX	612,000
Germany	107	XX	2,690,000	158	XX	6,840,000
Italy	10	XX	762,000	20	XX	1,580,000
Japan	599	XX	38,100,000	1,050	XX	66,200,000
Korea, Republic of	36	XX	2,590,000	204	XX	12,800,000
Malaysia	12	XX	1,840,000	39	XX	4,900,000
Norway	45	XX	1,130,000	45	XX	1,140,000
Taiwan	151	XX	11,400,000	299	XX	19,100,000
United Kingdom	3	XX	508,000	8	XX	1,070,000
Other (19 countries)	3	XX	381,000	11	XX	1,990,000
Total	1,570	1,570^e	77,800,000	4,120	4,120^e	183,000,000
99.00%–99.99% silicon:						
Belgium	--	--	--	5	5	7,000
El Salvador	--	--	--	4	4	5,300
Korea, Republic of	1,180	891	1,820,000	1,490	1,120	2,730,000
Mexico	1	1	2,520	3	3	7,560
Ukraine	--	--	--	2	2	2,550
Total	1,180	892	1,820,000	1,500	1,130	2,750,000

See footnotes at end of table.

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

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February		Value
				Gross weight	Contained weight	
Metal—Continued:						
Other silicon:						
Belgium	12	12	\$15,700	12	12	\$15,700
Canada	22	21	50,700	30	29	88,800
China	22	22	130,000	26	25	142,000
Dominican Republic	--	--	--	5	5	6,320
Germany	103	100	189,000	103	100	189,000
Japan	104	101	137,000	104	101	137,000
Mexico	1	1	12,300	8	7	24,100
Pakistan	4	4	4,910	4	4	4,910
South Africa	1	1	12,000	2	2	19,400
Taiwan	20	19	34,700	31	30	84,700
Other (8 countries)	2	1	25,600	2	2	44,600
Total	291	282	612,000	327	317	757,000
Total silicon metal	3,040	2,740	80,200,000	5,950	5,570	187,000,000

⁶Estimated. XX Not applicable. --Zero.

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

²Data 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 OF FERROSILICON AND SILICON METAL
IN FEBRUARY 2013^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55%–80% silicon, more than 3% Ca:						
China	--	--	--	21	16	\$27,700
France	4	3	\$8,820	12	8	27,300
Germany	19	12	47,500	19	12	47,500
Total	23	15	56,300	52	35	103,000
55–80% silicon, Other:						
Brazil	19	14	19,800	19	14	19,800
Canada	1,180	878	2,730,000	2,680	1,980	6,030,000
China	2,790	2,110	3,920,000	3,090	2,340	4,340,000
France	122	85	354,000	150	103	418,000
Germany	50	36	162,000	66	47	261,000
Iceland	--	--	--	1,500	1,170	1,970,000
Russia	13,600	10,300	18,400,000	23,600	17,900	31,500,000
South Africa	87	56	224,000	105	68	265,000
United Kingdom	28	19	153,000	340	258	615,000
Venezuela	3,700	2,780	5,410,000	3,700	2,780	5,410,000
Other (3 countries)	--	--	--	604	453	858,000
Total	21,600	16,300	31,400,000	35,800	27,100	51,700,000
Magnesium ferrosilicon:						
Argentina	98	48	126,000	117	52	181,000
Canada	1,130	501	2,140,000	2,260	1,010	4,320,000
China	110	49	228,000	284	129	577,000
India	41	5	81,000	168	37	844,000
Total	1,380	603	2,580,000	2,830	1,230	5,920,000
Other ferrosilicon:						
Canada	1,120	398	1,290,000	1,980	672	2,400,000
China	70	35	195,000	13,300	2,090	7,560,000
Germany	3	1	12,100	4	2	22,100
India	139	61	117,000	185	82	165,000
Poland	19	7	31,700	38	15	55,500
Russia	3	2	6,320	3	2	6,320
Turkey	(3)	(3)	5,000	(3)	(3)	5,000
Venezuela	--	--	--	54	30	53,000
Total	1,350	504	1,660,000	15,600	2,890	10,300,000
Total ferrosilicon	24,300	17,400	35,600,000	54,300	31,200	68,000,000

See footnotes at end of table.

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

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	23	XX	\$93,600	23	XX	\$93,600
China	5	XX	95,500	17	XX	253,000
Denmark	(3)	XX	71,500	(3)	XX	160,000
Germany	77	XX	7,030,000	252	XX	15,900,000
Japan	30	XX	1,540,000	36	XX	1,780,000
Korea, Republic of	10	XX	876,000	64	XX	3,270,000
Malaysia	10	XX	1,080,000	10	XX	1,100,000
Slovenia	--	XX	--	5	XX	581,000
Taiwan	4	XX	294,000	6	XX	420,000
Thailand	192	XX	442,000	192	XX	442,000
Other (3 countries)	(3)	XX	58,400	1	XX	287,000
Total	351	351 ^c	11,600,000	606	606 ^c	24,300,000
99.00%–99.99% silicon:						
Australia	1,760	1,750	4,640,000	3,730	3,710	9,830,000
Brazil	1,400	1,390	3,670,000	3,500	3,470	9,680,000
Canada	1,260	1,250	3,700,000	2,360	2,340	6,730,000
Japan	--	--	--	35	1	44,900
Kazakhstan	140	139	322,000	140	139	322,000
Laos	18	18	45,800	18	18	45,800
Norway	698	694	2,690,000	2,090	2,080	8,730,000
South Africa	2,860	2,840	7,890,000	7,450	7,390	20,600,000
Spain	60	59	161,000	120	119	323,000
Thailand	1,000	998	2,460,000	1,920	1,900	4,700,000
Other (1 country)	6	5	44,000	6	5	44,000
Total	9,210	9,140	25,600,000	21,400	21,200	61,000,000
Other silicon:						
Belgium	20	19	38,300	40	38	74,900
Brazil	316	312	806,000	683	675	1,730,000
Canada	787	775	2,340,000	2,430	2,400	7,170,000
China	20	20	39,800	41	39	86,300
France	396	387	975,000	396	387	975,000
Germany	--	--	--	1	1	16,200
Japan	84	79	98,300	109	104	257,000
Norway	18	18	46,800	18	18	46,800
Total	1,640	1,610	4,340,000	3,720	3,660	10,400,000
Total silicon metal	11,200	11,100	41,500,000	25,700	25,400	95,600,000

^cEstimated. XX Not applicable. --Zero.

¹Presentation of monthly data is based on the "January–February" 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.