

Mineral Industry Surveys

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SILICON IN FEBRUARY 2017

Domestic production of silicon materials was 36,800 metric tons (t) in February 2017, a slight decrease from January 2017 production and 12% less than February 2016 production (fig. 1, table 1). Net shipments were 22,900 t, a 5% decrease from shipments in January 2017 and a 16% decrease from shipments in February 2016. Total production and net shipments during the first 2 months of 2017 were 12% less and 10% less, respectively, than those during the same period in 2016 (table 1).

Ending stocks were 38,900 t in February 2017, slightly more than those in January 2017 and 23% less than those in February 2016 (table 1). Adjustments in stocks included in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other alloys.

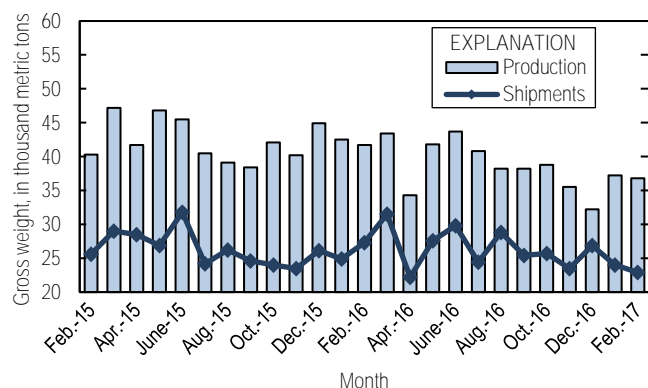


Figure 1. Monthly domestic production of total silicon materials and net shipments from February 2015 through February 2017 (may include revisions to previously published data). Source: U.S. Geological Survey.

The average U.S. spot price for silicon metal was 100.5 cents per pound in February 2017, a slight increase from the average

price in January 2017, and a 3% increase from the February 2016 price. The average U.S. spot prices for ferrosilicon, 50% and 75% grades, were the same as the average prices in January 2017 and were 11% greater and 22% greater, respectively, than their average prices in February 2016 (fig. 2).

All comparative statistics were calculated based on unrounded, gross-weight figures.

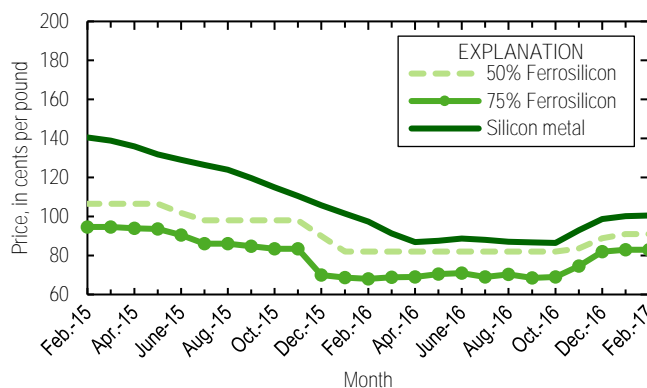


Figure 2. Average monthly spot prices for silicon metal and ferrosilicon 50% and 75% grades, contained silicon, from February 2015 through February 2017. Source: CRU Ryan's Notes and Platts Metals Week.

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

(Metric tons, gross weight)

	Gross production ³	Net shipments	Producers' stocks, end of period
2016: ^p			
January–December	471,000	318,000	37,100
January–February	84,200	52,200 ^r	50,800 ^r
February	41,700	27,300	50,800
March	43,400	31,500	45,100
April	34,300	22,200	45,800
May	41,800	27,600	46,200
June	43,700	29,800	45,600
July	40,800	24,400	48,700
August	38,200	28,800	42,800
September	38,200	25,400	41,400
October	38,800	25,700	42,000
November	35,500	23,500	41,900
December	32,200	26,900	37,100
2017:			
January	37,200	24,000	38,400
February	36,800	22,900	38,900
January–February	73,900	46,900	38,900

^pPreliminary. ^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.

³Ferrosilicon production includes material consumed in the production of miscellaneous silicon alloys.

TABLE 2
PRICES FOR FERROSILICON AND SILICON METAL IN FEBRUARY 2017

		Low	Average	High	Average low, mid, and high
Ferrosilicon:					
50% ferrosilicon ¹	cents per pound of contained silicon	89.00	XX	93.00	89.00–91.00–93.00
75% ferrosilicon ²	do.	82.00	83.00	84.00	XX
Silicon metal, 553 grade ³	cents per pound	99.00	100.50	102.00	XX

do. Ditto. XX Not applicable.

¹CRU Ryan's Notes, North American transaction price, duty paid, f.o.b. Pittsburgh, producing plant or Chicago/Pittsburgh 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 2017^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February ³		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Belgium	--	--	--	289	160	\$128,000
Brazil	--	--	--	13	8	24,300
Canada	131	78	\$196,000	272	163	349,000
Germany	--	--	--	3	2	7,050
Mexico	519	311	850,000	750	450	1,320,000
Netherlands	--	--	--	567	408	461,000
Total	649	390	1,050,000	1,890	1,190	2,290,000
Other ferrosilicon:						
Belgium	76	36	111,000	188	87	205,000
Brazil	--	--	--	38	17	76,000
Canada	493	246	232,000	734	367	373,000
France	20	9	31,000	40	18	62,800
Ghana	6	3	6,400	6	3	6,400
Indonesia	--	--	--	40	11	61,100
Korea, Republic of	60	27	63,300	120	53	127,000
Mexico	308	154	608,000	521	261	1,040,000
United Kingdom	84	41	131,000	147	71	243,000
Total	1,050	516	1,180,000	1,830	889	2,200,000
Total ferrosilicon	1,700	906	2,230,000	3,730	2,080	4,490,000
Metal:						
More than 99.99% silicon:						
China	147	147	1,210,000	501	501	9,370,000
Czechia	30	30	837,000	30	30	837,000
Germany	304	304	7,270,000	479	479	12,000,000
Hong Kong	343	343	3,070,000	671	671	5,620,000
Japan	960	960	33,300,000	2,770	2,770	103,000,000
Korea, Republic of	188	188	3,810,000	507	507	13,400,000
Malaysia	28	28	3,530,000	315	315	9,970,000
Netherlands	17	17	290,000	17	17	290,000
Singapore	351	351	6,490,000	375	375	6,720,000
Taiwan	2,630	2,630	34,200,000	4,590	4,590	59,700,000
Other (22 countries)	26	26	717,000	43	43	1,820,000
Total	5,030	5,030	94,800,000	10,300	10,300	222,000,000
99.00%–99.99% silicon:						
Costa Rica	(4)	(4)	3,320	(4)	(4)	3,320
Israel	8	8	11,800	26	26	37,200
Japan	--	--	--	12	12	17,000
Mexico	1	1	2,970	2	2	6,090
Netherlands	233	231	176,000	311	308	235,000
Spain	5	5	7,500	5	5	7,500
United Kingdom	15	15	20,900	15	15	20,900
Total	263	260	223,000	372	369	327,000
Other silicon:						
Belgium	60	59	63,600	120	118	127,000
Canada	61	60	100,000	75	73	135,000
China	10	9	12,800	10	9	12,800
Colombia	1	1	2,730	1	1	2,730
Guatemala	1	1	6,990	1	1	6,990
Korea, Republic of	7	7	9,660	7	7	9,660

See footnotes at end of table.

TABLE 3—Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2017^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February ³		
				Gross weight	Contained weight	Value
Metal—Continued:						
Other silicon:						
Mexico	6	5	\$11,100	13	13	\$25,700
South Africa	(4)	(4)	8,690	1	1	21,100
United Kingdom	62	60	78,500	63	61	84,900
Total	208	203	294,000	291	283	426,000
Total silicon metal	5,500	5,490	95,300,000	11,000	11,000	223,000,000

-- 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.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2017^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February ³		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55%–80% silicon, more than 3% Ca:						
Brazil	216	161	\$238,000	1,130	748	\$1,480,000
France	54	33	142,000	90	55	245,000
South Africa	18	11	50,500	18	11	50,500
Total	288	205	430,000	1,240	814	1,770,000
55%–80% silicon, other:						
Brazil	1,260	948	1,420,000	1,500	1,120	1,650,000
Canada	1,030	743	2,250,000	2,710	1,980	5,060,000
Egypt	119	87	141,000	119	87	141,000
France	164	112	467,000	218	146	616,000
Iceland	2,100	1,590	2,100,000	3,110	2,350	3,160,000
Kazakhstan	4,380	3,340	5,100,000	5,080	3,870	5,850,000
Malaysia	97	73	115,000	244	183	291,000
Norway	--	--	--	506	382	565,000
Russia	--	--	--	1,500	1,140	1,460,000
Vietnam	107	81	113,000	107	81	113,000
Other (6 countries)	179	133	483,000	280	201	810,000
Total	9,430	7,110	12,200,000	15,400	11,500	19,700,000
80%–90% ferrosilicon, Germany	4	3	3,780	4	3	3,780
More than 90% ferrosilicon, Brazil	--	--	--	1,440	1,330	453,000
Magnesium ferrosilicon:						
Argentina	57	26	55,900	80	33	115,000
Canada	1,050	476	1,870,000	2,200	1,000	3,950,000
China	10	5	16,000	10	5	16,000
Germany	--	--	--	13	7	28,000
India	163	51	198,000	243	77	300,000
Total	1,280	557	2,140,000	2,550	1,120	4,410,000
Other ferrosilicon:						
Canada	1,790	639	1,160,000	2,760	995	2,110,000
China	102	45	148,000	104	46	152,000
Germany	--	--	--	6	2	31,800
Japan	2	1	3,440	2	1	3,440
Russia	20	10	35,900	30	14	48,300
Slovakia	--	--	--	20	3	26,600
South Africa	--	--	--	7	3	9,990
Trinidad and Tobago	--	--	--	89	14	34,800
Total	1,910	695	1,350,000	3,020	1,080	2,420,000
Total ferrosilicon	12,900	8,570	16,100,000	23,600	15,900	28,800,000
Metal:						
More than 99.99% silicon:						
Brazil	614	614	1,700,000	1,830	1,830	4,510,000
China	18	18	2,120,000	21	21	2,390,000
Denmark	1	1	200,000	1	1	200,000
Germany	29	29	2,650,000	126	126	6,470,000
Japan	28	28	1,210,000	42	42	1,860,000
Korea, Republic of	(4)	(4)	43,400	(4)	(4)	43,400
Norway	19	19	79,000	38	38	155,000
Spain	--	--	--	(4)	(4)	3,440
Sweden	--	--	--	1	1	37,100
Taiwan	20	20	505,000	54	54	1,370,000

See footnotes at end of table.

TABLE 4—Continued
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN FEBRUARY 2017^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–February ³		
				Gross weight	Contained weight	Value
Metal—Continued:						
More than 99.99% silicon:						
Other (1 country)	(4)	(4)	\$13,800	(4)	(4)	\$19,500
Total	730	730	8,510,000	2,120	2,120	17,100,000
99.00%–99.99% silicon:						
Australia	480	476	973,000	2,010	2,000	4,050,000
Bosnia and Herzegovina	202	201	323,000	504	502	796,000
Brazil	942	935	2,180,000	2,840	2,810	6,370,000
Canada	2,040	2,030	5,320,000	3,490	3,460	9,100,000
France	--	--	--	240	238	382,000
Kazakhstan	1,240	1,230	2,210,000	2,090	2,070	3,820,000
Malaysia	--	--	--	114	113	177,000
Norway	(4)	(4)	7,060	270	268	785,000
South Africa	--	--	--	550	545	1,040,000
Thailand	374	371	702,000	773	766	1,350,000
Other (2 countries)	16	16	30,600	17	16	34,700
Total	5,300	5,260	11,700,000	12,900	12,800	27,900,000
Other silicon:						
Australia	166	159	334,000	550	538	1,130,000
Brazil	2,110	2,070	4,430,000	3,200	3,140	7,150,000
Canada	--	--	--	693	677	1,810,000
China	46	44	52,400	108	104	130,000
Japan	39	38	62,500	91	87	128,000
Norway	603	587	849,000	1,360	1,330	2,040,000
Spain	(4)	(4)	2,100	(4)	(4)	2,100
United Kingdom	19	18	39,700	52	51	108,000
Total	2,990	2,920	5,770,000	6,050	5,920	12,500,000
Total silicon metal	9,020	8,910	26,000,000	21,100	20,800	57,500,000

-- Zero.

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Source: U.S. Census Bureau.