

Mineral Industry Surveys

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SILICON IN JANUARY 2017

Domestic production of silicon materials was 37,200 metric tons (t) in January 2017, a 15% increase from December 2016 production and 13% less than January 2016 production (fig. 1, table 1). Net shipments were 24,000 t, an 11% decrease from shipments in December 2016 and a 4% decrease from shipments in January 2016.

Ending stocks were 38,400 t in January 2017, 3% more than those in December 2016 and 22% less than those in January 2016 (table 1). Adjustments in stocks included in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other alloys.

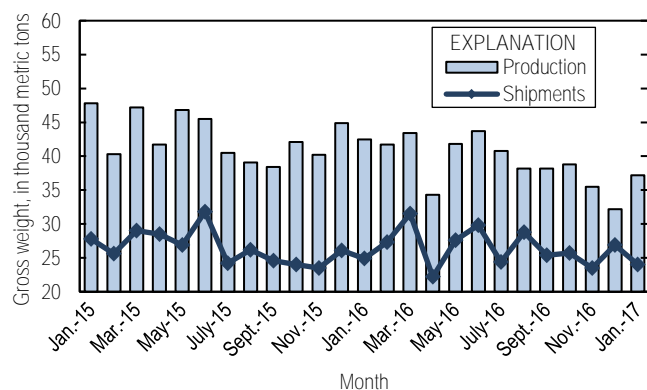


Figure 1. Monthly domestic production of total silicon materials and net shipments from January 2015 through January 2017 (may include revisions to previously published data). Source: U.S. Geological Survey.

The average U.S. spot price for silicon metal was 100.13 cents per pound in January 2017, a slight increase from the average price in December 2016, and a slight decrease from the

January 2016 price. The average U.S. spot prices for ferrosilicon, 50% and 75% grades, were 3% and slightly greater, respectively, than the average prices in December 2016 and were 11% greater and 21% greater, respectively, than their average prices in January 2016 (fig. 2).

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

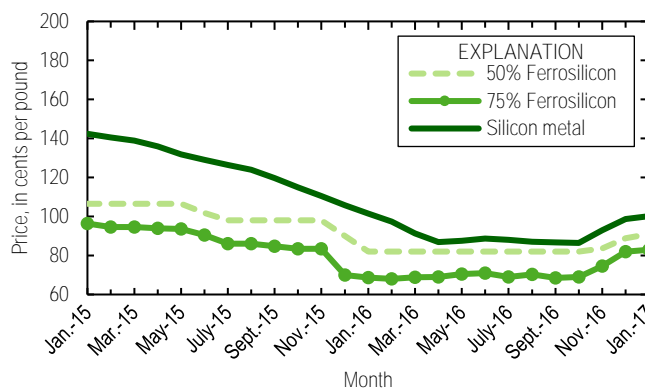


Figure 2. Average monthly spot prices for silicon metal and ferrosilicon 50% and 75% grades, contained silicon, from January 2015 through January 2017. Source: CRU Ryan's Notes and Platts Metals Week.

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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	42,500	24,900	48,900
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 ^r	38,800	25,700	42,000
November ^r	35,500	23,500	41,900
December ^r	32,200	26,900	37,100
January–December ^r	471,000	318,000	37,100
2017, January	37,200	24,000	38,400

^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 JANUARY 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	98.00	100.13	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 JANUARY 2017^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Ferrosilicon:			
More than 55% silicon:			
Belgium	289	160	\$128,000
Brazil	13	8	24,300
Canada	142	85	153,000
Germany	3	2	7,050
Mexico	231	139	474,000
Netherlands	567	408	461,000
Total	1,240	802	1,250,000
Other ferrosilicon:			
Belgium	112	51	94,100
Brazil	38	17	76,000
Canada	241	121	141,000
France	20	9	31,800
Indonesia	40	11	61,100
Korea, Republic of	60	26	63,300
Mexico	214	107	434,000
United Kingdom	62	30	111,000
Total	787	372	1,010,000
Total ferrosilicon	2,030	1,170	2,260,000
Metal:			
More than 99.99% silicon:			
China	354	354	8,170,000
Dominican Republic	6	6	29,400
Germany	176	176	4,720,000
Hong Kong	328	328	2,550,000
Japan	1,810	1,810	69,200,000
Korea, Republic of	318	318	9,630,000
Malaysia	287	287	6,440,000
Singapore	24	24	229,000
Taiwan	1,960	1,960	25,500,000
United Kingdom	6	6	833,000
Other (12 countries)	5	5	243,000
Total	5,280	5,280	128,000,000
99.00%–99.99% silicon:			
Israel	18	18	25,400
Japan	12	12	17,000
Mexico	1	1	3,120
Netherlands	78	77	58,900
Total	109	108	104,000
Other silicon:			
Belgium	60	59	63,600
Canada	14	13	35,100
Mexico	8	7	14,500
South Africa	1	1	12,400
United Kingdom	1	1	6,430
Total	83	81	132,000
Total silicon metal	5,470	5,470	128,000,000

¹Presentation of monthly data is based on the 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 JANUARY 2017^{1, 2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Ferrosilicon:			
55%–80% silicon, more than 3% Ca:			
Brazil	917	587	\$1,240,000
France	36	22	103,000
Total	953	608	1,340,000
55%–80% silicon, other:			
Brazil	233	174	233,000
Canada	1,680	1,240	2,810,000
France	54	34	149,000
Germany	62	43	219,000
Iceland	1,010	759	1,060,000
Kazakhstan	700	531	758,000
Malaysia	148	110	176,000
Norway	506	382	565,000
Russia	1,500	1,140	1,460,000
South Africa	18	13	42,500
Other (2 countries)	20	12	65,500
Total	5,940	4,430	7,540,000
More than 90% ferrosilicon, Brazil	1,440	1,330	453,000
Magnesium ferrosilicon:			
Argentina	23	7	59,600
Canada	1,150	523	2,080,000
Germany	13	7	28,000
India	80	26	102,000
Total	1,270	564	2,270,000
Other ferrosilicon:			
Canada	977	356	953,000
China	2	1	3,670
Germany	6	2	31,800
Russia	10	5	12,400
Slovakia	20	3	26,600
South Africa	7	3	9,990
Trinidad and Tobago	89	14	34,800
Total	1,110	384	1,070,000
Total ferrosilicon	10,700	7,310	12,700,000
Metal:			
More than 99.99% silicon:			
Brazil	1,220	1,220	2,820,000
China	3	3	274,000
Germany	97	97	3,830,000
Japan	14	14	650,000
Norway	19	19	76,400
Spain	(3)	(3)	3,440
Sweden	1	1	37,100
Taiwan	34	34	860,000
Ukraine	(3)	(3)	5,750
Total	1,390	1,390	8,550,000
99.00%–99.99% silicon:			
Australia	1,530	1,520	3,070,000
Bosnia and Herzegovina	301	301	474,000
Brazil	1,890	1,880	4,190,000

See footnotes at end of table.

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

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Metal—Continued			
99.00%–99.99% silicon:			
Canada	1,440	1,430	\$3,780,000
France	240	238	382,000
Kazakhstan	846	839	1,610,000
Malaysia	114	113	177,000
Norway	270	268	778,000
South Africa	550	545	1,040,000
Thailand	399	396	648,000
Other (1 country)	(3)	(3)	4,050
Total	7,590	7,530	16,200,000
Other silicon:			
Australia	384	378	796,000
Brazil	1,080	1,070	2,720,000
Canada	693	677	1,810,000
China	62	60	77,700
Japan	51	49	65,900
Norway	760	739	1,190,000
United Kingdom	33	32	68,600
Total	3,070	3,000	6,730,000
Total silicon metal	12,000	11,900	31,400,000

¹Presentation of monthly data is based on the 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.