

Mineral Industry Surveys

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SILICON IN JANUARY 2018

Domestic production of silicon materials was 43,300 metric tons (t) in January 2018, a slight decrease from December 2017 production and 17% more than January 2017 production (fig. 1, table 1). Net shipments were 26,200 t, an 8% increase from shipments in December 2017 and a 9% increase from shipments in January 2017.

Ending stocks were 33,300 t in January 2018, 4% less than stocks in December 2017 and 13% less than those in January 2017 (table 1). Adjustments in stocks included in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other alloys. All comparative statistics were calculated based on unrounded, gross-weight figures.

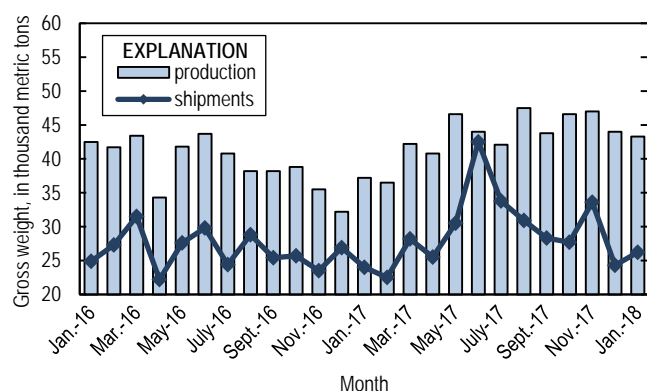


Figure 1. Monthly domestic production of total silicon materials and net shipments from January 2016 through January 2018 (may include revisions to previously published data). Source: U.S. Geological Survey.

The average U.S. spot price for silicon metal was 141.70 cents per pound in January 2018, a slight increase from the

average price in December 2017, and a 42% increase from the January 2017 price. The average U.S. spot prices for ferrosilicon, 50% and 75% grades, were the slightly more and 9% more, respectively, than the average prices in December 2017 and were 14% and 33% greater, respectively, than their average prices in January 2017 (fig. 2).

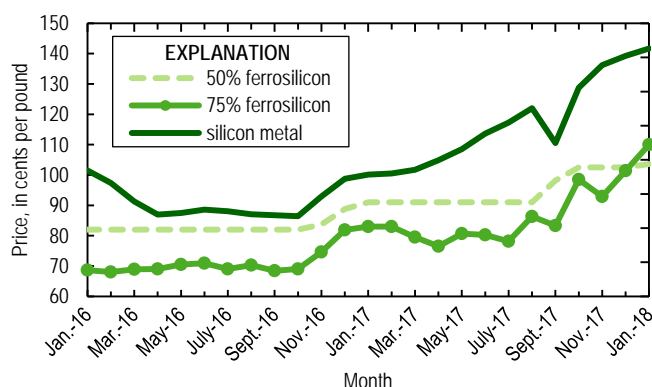


Figure 2. Average monthly spot prices for silicon metal and ferrosilicon 50% and 75% grades, contained silicon, from January 2016 through January 2018. Source: CRU Group and S&P Global Platts.

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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
2017:			
January	37,200	24,000	38,400
February	36,500	22,500	40,800
March	42,200	28,200	41,800
April	40,800	25,500	45,200
May	46,600	30,500	45,400
June	44,000	42,500	28,900
July	42,100	33,800	21,400
August	47,500	30,900	21,000
September	43,800	28,300	22,200
October	46,600	27,700	25,900
November	47,000 ^r	33,600 ^r	27,600 ^r
December	44,000	24,300	34,600
January–December	518,000 ^r	352,000 ^r	34,600
2018, January	43,300	26,200	33,300

^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

TABLE 2
PRICES FOR FERROSILICON AND SILICON METAL IN JANUARY 2018

		Low	Average	High	Average low, mid, and high
Ferrosilicon:					
50% ferrosilicon ¹	cents per pound of contained silicon	100.00	XX	107.00	101.11–103.61–106.11
75% ferrosilicon ²	do.	108.00	110.00	113.00	XX
Silicon metal, 553 grade ³	cents per pound	138.00	141.70	145.00	XX

do. Ditto. XX Not applicable.

¹CRU Group transaction price, duty paid, f.o.b. Pittsburgh, producing plant or Chicago/Pittsburgh warehouse. Average price reported for price range.

²S&P Global Platts, in U.S. warehouse, U.S. origin and imported material. Average price reported for all transactions during the month.

³S&P Global Platts, 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 2018^{1,2}

(Metric tons, unless otherwise specified)

Country or locality	Gross weight	Contained weight	Value
Ferrosilicon:			
More than 55% silicon:			
Canada	276	166	\$453,000
India	116	102	133,000
Mexico	230	142	535,000
Total	623	409	1,120,000
Other ferrosilicon:			
Canada	173	86	75,600
Denmark	20	9	32,800
France	20	9	33,500
Ghana	6	3	7,680
Indonesia	20	10	30,500
Korea, Republic of	40	17	43,200
Mexico	200	95	432,000
Thailand	20	9	37,000
Turkey	61	31	97,000
United Kingdom	239	107	392,000
Total	799	375	1,180,000
Total ferrosilicon	1,420	784	2,300,000
Metal:			
More than 99.99% silicon:			
China	758	758	7,290,000
Germany	17	17	429,000
Hong Kong	220	220	2,050,000
Japan	1,900	1,900	59,500,000
Korea, Republic of	55	55	3,680,000
Malaysia	15	15	2,370,000
Norway	180	180	3,350,000
Singapore	132	132	1,830,000
Taiwan	1,360	1,360	13,700,000
Ukraine	12	12	408,000
Other (14 countries)	17	17	1,250,000
Total	4,670	4,670	95,800,000
99.00%–99.99% silicon:			
Germany	166	165	163,000
Korea, Republic of	1	1	3,460
Mexico	3	3	8,470
United Kingdom	18	18	13,700
Total	188	187	188,000
Other silicon:			
Belgium	115	111	157,000
Canada	17	17	37,700
China	49	48	64,600
France	140	137	151,000
Germany	(3)	(3)	6,850
India	3	3	4,320
Iran	(3)	(3)	3,520
Japan	13	13	135,000
Mexico	5	5	14,600
South Africa	(3)	(3)	4,190
Other (1 country)	(3)	(3)	2,760
Total	344	335	582,000
Total silicon metal	5,200	5,190	96,600,000

See footnotes at end of table.

TABLE 3—Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2018^{1, 2}

(Metric tons, unless otherwise specified)

Country or locality	Gross weight	Contained weight	Value
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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.

TABLE 4
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2018^{1,2}

(Metric tons, unless otherwise specified)

Country or locality	Gross weight	Contained weight	Value
Ferrosilicon:			
55%–80% silicon, more than 3% Ca:			
France	90	53	\$267,000
Hong Kong	60	45	94,400
South Africa	108	76	219,000
Total	258	174	580,000
55%–80% silicon, other:			
Argentina	163	123	177,000
Brazil	1,110	827	1,510,000
Canada	1,450	1,070	2,940,000
China	152	114	209,000
France	154	109	423,000
Iceland	997	788	1,330,000
Malaysia	264	197	380,000
Russia	270	203	422,000
Slovakia	144	108	181,000
South Africa	72	51	189,000
Other (3 countries)	69	47	249,000
Total	4,850	3,640	8,020,000
80%–90% ferrosilicon, Germany	56	47	54,700
More than 90% ferrosilicon, Brazil	1,270	1,180	824,000
Magnesium ferrosilicon:			
Canada	1,380	630	2,510,000
Germany	6	3	21,900
India	206	30	285,000
Total	1,590	662	2,820,000
Other ferrosilicon:			
Canada	945	369	1,130,000
China	178	75	283,000
Russia	20	10	38,000
Slovakia	19	10	27,100
United Kingdom	1	(3)	3,440
Total	1,160	465	1,480,000
Total ferrosilicon	9,180	6,160	13,800,000
Metal:			
More than 99.99% silicon:			
China	8	8	1,660,000
Denmark	(3)	(3)	114,000
Finland	(3)	(3)	108,000
Germany	108	108	5,400,000
Japan	20	20	978,000
Korea, Republic of	(3)	(3)	12,800
Luxembourg	(3)	(3)	2,240
Poland	(3)	(3)	12,500
Sweden	1	1	31,000
Taiwan	44	44	1,440,000
Total	182	182	9,760,000
99.00%–99.99% silicon:			
Bosnia and Herzegovina	615	612	1,470,000
Brazil	2,040	2,030	5,400,000
Canada	2,190	2,170	6,320,000
Laos	290	288	691,000
Norway	600	596	1,340,000

See footnotes at end of table.

TABLE 4—Continued
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2018^{1,2}

(Metric tons, unless otherwise specified)

Country or locality	Gross weight	Contained weight	Value
Metal—Continued:			
99.00%–99.99% silicon:			
Thailand	58	57	\$159,000
Total	5,800	5,750	15,400,000
Other silicon:			
Brazil	364	360	1,030,000
Canada	20	20	14,800
China	46	44	50,000
Germany	9	9	10,300
Iceland	99	96	139,000
Japan	179	172	200,000
Norway	510	500	1,010,000
Sweden	67	65	73,400
Thailand	144	138	386,000
Total	1,440	1,400	2,910,000
Total silicon metal	7,420	7,340	28,000,000

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.

³Less than ½ unit.

Source: U.S. Census Bureau.