

Mineral Industry Surveys

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SILICON IN JANUARY 2019

Domestic production of silicon materials was 40,800 metric tons (t) in January 2019, a 3% decrease from December 2018 production and 5% less than January 2018 production (fig. 1, table 1). Net shipments were 31,500 t, 3% more than shipments in December 2018 and 18% more than shipments in January 2018.

Ending stocks were 22,800 t in January 2019, 5% less than stocks in December 2018 and 22% less than those in January 2018 (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.

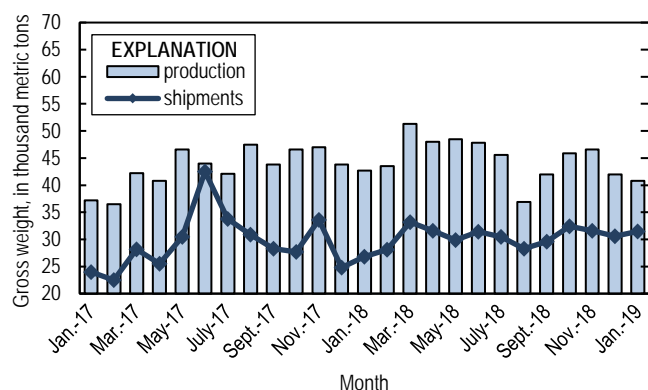


Figure 1. Monthly domestic production of total silicon materials and net shipments from January 2017 through January 2019 (may include revisions to previously published data).

Prices

The average U.S. spot price for silicon metal was 116.85 cents per pound in January 2019, slightly less than the average price in December 2018 and 18% less than that in January 2018. The average U.S. spot prices for ferrosilicon, 50% and 75% grades, were essentially unchanged and slightly less, respectively, when compared with the average prices in December 2018 and were slightly less and 7% less, respectively, than their average prices in January 2018 (fig. 2).

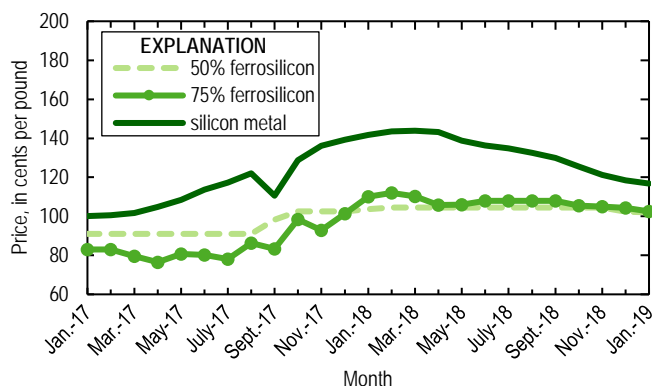


Figure 2. Average monthly spot prices for silicon metal and ferrosilicon 50% and 75% grades, contained silicon, from January 2017 through January 2019. Source: CRU Group and S&P Global Platts.

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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
2018:			
January	42,700	26,800	29,100
February	43,500	28,100	31,400
March	51,300	33,200	31,200
April	48,000	31,600	31,400
May	48,500	29,900	32,500
June	47,800	31,400	32,000
July	45,600	30,500	31,400
August	36,900	28,300	25,800
September	42,000	29,600	24,900
October	45,900	32,400	24,400
November	46,600	31,600	24,900
December	42,000	30,600	24,000
January–December	541,000	364,000	24,000
2019, January	40,800	31,500	22,800

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 2019

		Low	Average	High	Average low, mid, and high
Ferrosilicon:					
50% ferrosilicon ¹	cents per pound of contained silicon	101.00	XX	103.00	101.00–102.00–103.00
75% ferrosilicon ²	do.	101.00	102.50	105.00	XX
Silicon metal, 553 grade ³	cents per pound	115.00	116.85	119.00	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 2019^{1, 2}

(Metric tons, unless otherwise specified)

Country or locality	January		
	Gross weight	Contained weight	Value
Ferrosilicon:			
More than 55% silicon:			
Canada	429	258	\$513,000
Dominican Republic	39	23	86,200
Germany	62	37	63,000
Mexico	190	114	384,000
United Kingdom	20	12	24,200
Total	740	444	1,070,000
Other ferrosilicon:			
Belgium	100	49	155,000
Brazil	20	10	38,000
Canada	33	16	41,200
France	20	10	33,200
Germany	20	10	35,200
Korea, Republic of	80	34	91,200
Mexico	276	70	439,000
Sweden	60	27	101,000
Turkey	78	37	139,000
United Kingdom	139	63	234,000
Total	825	326	1,310,000
Total ferrosilicon	1,570	770	2,380,000
Metal:			
More than 99.99% silicon:			
China	579	579	5,110,000
Germany	907	907	9,360,000
Hong Kong	79	79	463,000
Japan	882	882	31,900,000
Korea, Republic of	721	721	13,800,000
Malaysia	130	130	4,400,000
Netherlands	30	30	234,000
Norway	147	147	600,000
Russia	30	30	368,000
Taiwan	615	615	5,440,000
Other [11 countries and (or) localities]	25	25	1,280,000
Total	4,140	4,140	73,000,000
99.00%–99.99% silicon, United Kingdom	19	19	19,700
Other silicon:			
Australia	1	1	3,580
Belgium	8	8	10,900
Canada	33	32	60,500
China	4	4	8,340
Guatemala	2	2	3,130
Japan	3	3	4,290
Mexico	23	23	31,000
Netherlands	55	53	72,200
South Africa	10	9	20,100
Total	139	135	214,000
Total silicon metal	4,300	4,300	73,200,000

¹Presentation of monthly data is based on the quantities (gross weight) of the leading countries and (or) localities.

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 2019^{1, 2}

(Metric tons, unless otherwise specified)

Country or locality	January		
	Gross weight	Contained weight	Value
Ferrosilicon:			
55%–80% silicon, more than 3% Ca:			
France	54	35	\$144,000
South Africa	18	12	42,500
Total	72	47	187,000
55%–80% silicon, other:			
Brazil	1,770	1,330	2,490,000
Canada	1,660	1,220	3,390,000
France	352	249	1,200,000
Iceland	1,830	1,430	2,550,000
India	55	41	93,500
Kazakhstan	1,490	1,140	2,270,000
Malaysia	1,100	821	1,460,000
Paraguay	295	233	383,000
Russia	16,800	12,700	22,800,000
South Africa	72	45	174,000
Other [4 countries and (or) localities]	84	60	294,000
Total	25,500	19,300	37,100,000
Magnesium ferrosilicon:			
Argentina	19	9	18,900
Canada	1,080	498	1,970,000
India	401	183	368,000
Norway	19	9	37,000
Total	1,520	698	2,400,000
Other ferrosilicon:			
Canada	734	278	896,000
China	9	1	43,900
India	20	3	32,700
Russia	20	10	42,000
Slovakia	19	9	31,100
Turkey	22	10	15,500
Total	825	310	1,060,000
Total ferrosilicon	27,900	20,300	40,800,000
Metal:			
More than 99.99% silicon:			
Brazil	458	458	1,460,000
China	1	1	145,000
Denmark	(3)	(3)	136,000
Finland	(3)	(3)	279,000
Germany	24	24	3,690,000
Japan	12	12	934,000
Korea, Republic of	(3)	(3)	75,600
Taiwan	34	34	1,620,000
Ukraine	1	1	38,500
United Kingdom	1	1	10,900
Other [1 country and (or) locality]	(3)	(3)	11,400
Total	532	532	8,400,000
99.00%–99.99% silicon:			
Australia	987	980	2,750,000
Bosnia and Herzegovina	1,020	1,020	2,290,000
Brazil	2,960	2,930	7,980,000
Canada	3,410	3,380	9,940,000
Iceland	540	536	1,140,000
Kazakhstan	1,230	1,220	2,520,000

See footnotes at end of table.

TABLE 4—Continued
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN 2019^{1, 2}

(Metric tons, unless otherwise specified)

Country or locality	January		Value
	Gross weight	Contained weight	
Metal—Continued:			
99.00%–99.99% silicon:			
Laos	720	713	\$1,800,000
Norway	933	926	2,720,000
Total	11,800	11,700	31,100,000
Other silicon:			
Australia	312	307	862,000
Brazil	466	459	1,300,000
Canada	116	114	304,000
Kazakhstan	18	18	27,300
Netherlands	10	10	33,000
Norway	365	358	625,000
United Kingdom	19	18	45,000
Total	1,310	1,280	3,200,000
Total silicon metal	13,600	13,500	42,700,000

¹Presentation of monthly data is based on the quantities (gross weight) of the leading countries and (or) localities.

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.