

Mineral Industry Surveys

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SILICON IN JANUARY 2016

Domestic production of silicon materials was 42,500 metric tons (t) in January 2016, a 5% decrease from December 2015 production and an 11% decrease from January 2015 production (fig. 1, table 1). Net shipments were 24,900 t, a 5% decrease from shipments in December 2015 and 10% less than shipments in January 2015 (table 1).

Ending stocks were 48,900 t in January 2016, 8% greater than those in December 2015 and 22% more than those in January 2015 (table 1). Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

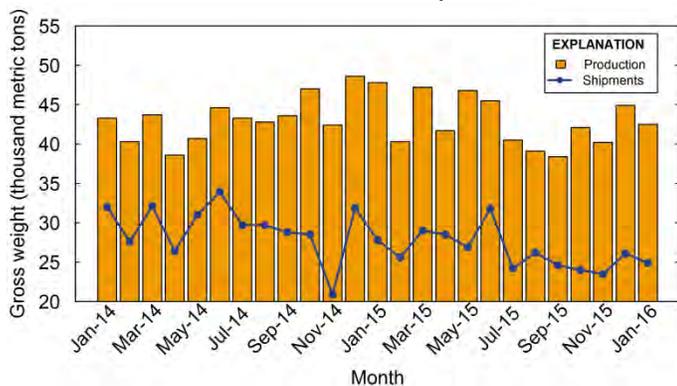


Figure 1. Monthly domestic gross production of total silicon materials and net shipments from January 2014 through January 2016 (may include revisions to previously published data). Source: U.S. Geological Survey.

U.S. imports of ferrosilicon and silicon metal were 41,900 t in January 2016, 71% more than those in December 2015 and 114% greater than those in January 2015 (fig. 2, table 4).

The average U.S. spot price for silicon metal was 101.5 cents per pound in January 2016, 4% less than the average price in December 2015, and 29% less than the January 2015 price. The average U.S. spot prices for ferrosilicon, 50% and 75% grades, were 9% and slightly less, respectively, than the average prices in December 2015 and were 23% and 29% less, respectively, than their average prices in January 2015 (fig. 3).

Individual production-related statistics were concealed to avoid disclosing company proprietary data. All comparative statistics were calculated based on unrounded, gross weight figures.

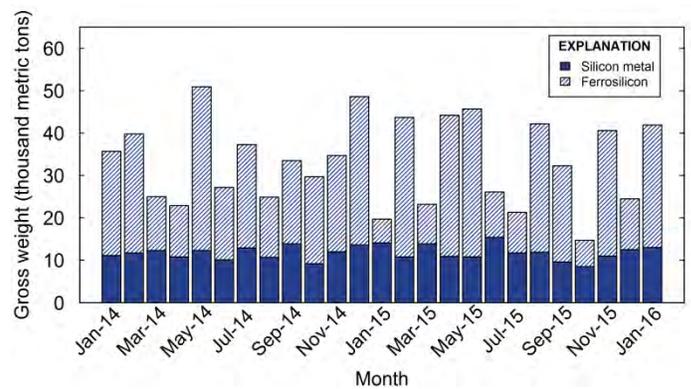


Figure 2. Monthly U.S. imports of ferrosilicon and silicon metal from January 2014 through January 2016. Source: U.S. Census Bureau.

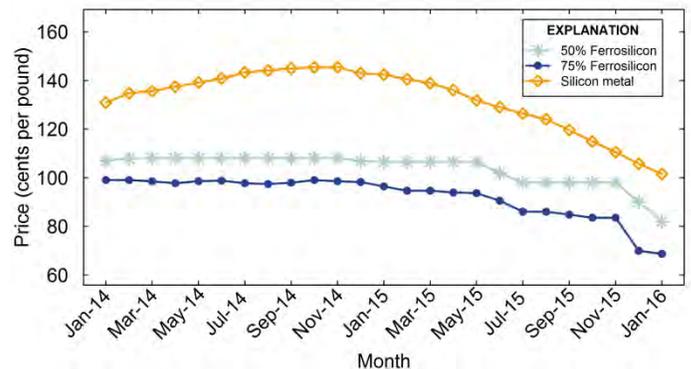


Figure 3. Average monthly prices for silicon metal and ferrosilicon 50% and 75% grades, contained silicon from January 2014 through January 2016. Source: CRU Ryan's Notes and Platts Metals Week.

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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
2015: ^p			
January ^f	47,800	27,800	40,100
February	40,300	25,600	40,600
March ^f	47,200	29,000	41,000
April ^f	41,700	28,500	39,700
May	46,800	26,900	44,000
June	45,500	31,800	41,000
July	40,500	24,200	41,600
August	39,100	26,200	38,900
September	38,400	24,600	37,800
October	42,100	24,000	40,400
November	40,200	23,500	43,100
December ^f	44,900	26,100	45,100
January–December ^f	514,000	318,000	45,100
2016, January	42,500	24,900	48,900

^pPreliminary. ^fRevised.

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 2016

		Low	Average	High	Average low, mid, and high
Ferrosilicon:					
50% ferrosilicon ¹	cents per pound of contained silicon	80.00	XX	84.00	80.00–82.00–84.00
75% ferrosilicon ²	do.	67.00	68.63	70.00	XX
Silicon metal, 553 grade ³	cents per pound	98.00	101.50	105.00	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 2016^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Ferrosilicon:			
More than 55% silicon:			
Canada	106	64	\$166,000
Mexico	321	192	735,000
Singapore	3	2	9,830
Total	430	258	911,000
Other ferrosilicon:			
Brazil	20	10	43,400
Canada	128	64	139,000
Korea, Republic of	60	26	66,000
Luxembourg	20	9	29,100
Mexico	243	119	526,000
Netherlands	60	26	30,800
Turkey	139	63	218,000
United Kingdom	40	18	63,700
Total	710	335	1,120,000
Total ferrosilicon	1,140	593	2,030,000
Metal:			
More than 99.99% silicon:			
China	307	307	11,600,000
Denmark	26	26	2,010,000
Hong Kong	114	114	1,020,000
Italy	66	66	2,040,000
Japan	687	687	35,200,000
Korea, Republic of	359	359	12,100,000
Mexico	17	17	1,020,000
Norway	110	110	1,760,000
Singapore	72	72	856,000
Taiwan	1,280	1,280	13,900,000
Other (12 countries)	30	30	3,300,000
Total	3,060	3,060	84,800,000
99.00%–99.99% silicon:			
Mexico	1	1	2,950
United Kingdom	6	6	8,640
Total	7	7	11,600
Other silicon:			
Belgium	40	39	48,600
Canada	31	30	50,000
Germany	18	18	24,400
Iran	(3)	(3)	3,100
Israel	8	8	10,800
Korea, Republic of	14	14	18,400
Mexico	4	4	26,000
Total	116	113	181,000
Total silicon metal	3,190	3,180	85,000,000

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.

TABLE 4
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2016^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Ferrosilicon:			
55%–80% silicon, more than 3% Ca:			
Brazil	351	264	\$314,000
China	510	390	444,000
France	18	11	58,000
South Africa	54	36	107,000
Total	933	701	923,000
55%–80% silicon, other:			
Brazil	532	399	455,000
Canada	1,270	935	2,330,000
China	277	208	309,000
Germany	8	6	40,200
Iceland	914	692	821,000
Norway	1,500	1,170	1,270,000
Russia	16,400	12,500	15,600,000
South Africa	18	13	34,600
Venezuela	4,300	3,230	4,380,000
Total	25,200	19,100	25,300,000
More than 90% ferrosilicon:			
Brazil	294	268	275,000
China	16	13	19,400
Total	310	280	294,000
Magnesium ferrosilicon:			
Argentina	44	20	66,100
Canada	1,280	578	2,420,000
Norway	74	34	154,000
Total	1,400	632	2,640,000
Other ferrosilicon:			
Canada	956	352	971,000
China	148	72	163,000
Total	1,100	424	1,130,000
Total ferrosilicon	28,900	21,200	30,300,000
Metal:			
More than 99.99% silicon:			
Brazil	500	500	1,660,000
China	22	22	449,000
Denmark	(3)	(3)	18,300
Finland	1	1	310,000
Germany	183	183	5,010,000
Japan	2	2	412,000
Korea, Republic of	63	63	1,960,000
Liechtenstein	(3)	(3)	6,280
Taiwan	13	13	275,000
Ukraine	(3)	(3)	10,100
Total	784	784	10,100,000
99.00%–99.99% silicon:			
Australia	1,730	1,720	4,140,000
Brazil	427	424	1,220,000
Canada	1,500	1,490	3,980,000
Japan	12	(3)	15,800
Kazakhstan	1,230	1,220	2,730,000
Korea, Republic of	19	19	40,600
Malaysia	151	150	317,000
Norway	276	274	855,000

See footnotes at end of table.

TABLE 4—Continued
 U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN JANUARY 2016^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value
Metal—Continued:			
99.00%–99.99% silicon:			
South Africa	4,840	4,810	\$13,600,000
Total	10,200	10,100	26,900,000
Other silicon:			
Australia	72	71	204,000
Bhutan	230	227	501,000
Brazil	661	653	1,880,000
Canada	100	99	257,000
China	82	80	108,000
Japan	(3)	(3)	7,920
Kazakhstan	298	286	659,000
Korea, Republic of	(3)	(3)	3,050
Malaysia	41	40	71,800
Norway	558	548	975,000
Other (1 country)	(3)	(3)	5,780
Total	2,040	2,000	4,680,000
Total silicon metal	13,000	12,900	41,600,000

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.