

Mineral Industry Surveys

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SILICON IN SEPTEMBER 2014

Domestic production of total silicon materials was 41,100 metric tons (t) for September 2014, a 3% increase from August 2014 production and a 3% increase from production in September 2013. Net shipments were 27,600 t, slightly less than shipments in August 2014 and 8% less than September 2013. Total production and net shipments during the first 9 months of 2014 were 9% and 10% greater, respectively, than those during the same period in 2013 (table 1). Individual production-related statistics were concealed to avoid disclosing company proprietary data.

Ending stocks were 32,700 t in September 2014, 3% more than those in August 2014 and 8% less than those in September 2013 (table 1). Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected silicon-containing materials in September 2014. All comparative statistics were calculated based on gross weight figures.

Industry News

Following the July 2014 termination of the International Trade Administration's (ITA) antidumping investigation of ferrosilicon imported from Russia during the period of July 1, 2012 through June 30, 2013, U.S. producers Globe Specialty Metals, Inc. and CC Metals and Alloys, LLC filed an appeal on September 25 with the U.S. Court of International Trade (International Trade Administration, 2014; Fitzgerald, 2014). The companies alleged the ITA erroneously found that the subject imports were not dumped on the U.S. market based on several factors, including mistakenly equating disparate Russian and U.S. sale prices. In doing so, the ITA used the product characteristics of ferrosilicon invoiced in Russia, as opposed to the characteristics of the ferrosilicon actually sold and delivered to the United States (Poole, 2014).

Construction began on Iceland's first silicon metal plant in Helgukvík. The project is a joint venture between several Icelandic companies, including the Fondel Group, with more than \$81 million (€65 million) already invested in the project. The first furnace at the plant was expected to be completed in 2016 and have a capacity of 22,000 metric tons per year (t/yr) (Smith, 2014). On September 22, OM Materials Sarawak Sdn. Bhd. became the first ferrosilicon producer in Malaysia. According to the company, ferrosilicon capacity at its Sarawak ferroalloys plant would reach 308,000 t/yr by mid-2015. The plant would also be producing manganese alloys (Watanabe, 2014).

Australia's only silicon producer, Simcoa Operations Pty Ltd, announced that it expected to produce 48,100 t of silicon metal in 2014, or at about maximum production capacity of 50,000 t/yr (Hobson, 2014).

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References Cited

- Hobson, M., 2014, Simcoa holds off on further expansion for now: *Platts Metals Daily*, v. 3, no. 183, September 17, p. 4.
- Fitzgerald, D., 2014, Globe, CC Metals & Alloys appeal Russian FeSi ruling: *American Metal Market*, v. 122, no. 37–3, September 10, p. 5.
- International Trade Administration, 2014, Ferrosilicon from the Russian Federation—Final determination of sales at not less than fair value: *Federal Register*, v. 79, no. 147, July 31, p. 44393–44394.
- Poole, A., 2014, US ferrosilicon producers file suit over Russia dumping margin decision by Commerce Dept.: *Platts Metals Daily*, v. 3, no. 190, September 26.
- Smith, C., 2014, Fondel signs jv for Iceland's first silicon plant: *Metal Bulletin*, September 8.
- Watanabe, M., 2014, Malaysia's OM to deliver first ferrosilicon to Japan in October: *Platts Metals Daily*, v. 3, no. 189, September 25.

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
2013: ^P			
January–December	468,000	331,000	33,700
January–September ^F	339,000	242,000	35,500
September	39,700	30,000	35,500
October	45,200	30,800	34,800
November	44,300	27,800	37,100
December	40,000	29,700	33,700
2014:			
January	42,600	32,000	31,400
February	39,700	27,500	33,000
March	42,700	32,200	34,400
April	37,600	25,900	34,000
May	39,400	30,400	31,800
June	43,700	33,600	29,900
July	42,300	29,500	31,500
August	39,900	28,200	31,800
September	41,100	27,600	32,700
January–September	369,000	267,000	32,700

^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 SEPTEMBER 2014

	Low	Average	High	Average low, mid, and high
Ferrosilicon:				
50% ferrosilicon ¹				
cents per pound of contained silicon	106.00	XX	110.00	106.00–108.00–110.00
75% ferrosilicon ²				
do.	96.00	97.94	100.00	XX
Silicon metal, 553 grade ³				
cents per pound	143.00	144.94	147.00	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 SEPTEMBER 2014^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–September ³		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Belgium	--	--	--	20	15	\$27,600
Brazil	6	4	\$15,000	25	15	44,600
Canada	430	258	671,000	3,300	1,980	5,150,000
Colombia	19	14	50,400	52	38	137,000
France	--	--	--	20	15	26,600
India	56	34	25,800	56	34	25,800
Japan	--	--	--	932	720	1,450,000
Mexico	242	154	546,000	1,860	1,160	4,460,000
Turkey	--	--	--	5	4	11,700
United Kingdom	--	--	--	95	64	125,000
Other (3 countries)	--	--	--	10	6	20,200
Total	753	463	1,310,000	6,380	4,050	11,500,000
Other ferrosilicon:						
Belgium	--	--	--	379	178	701,000
Brazil	--	--	--	171	86	394,000
Canada	135	68	229,000	823	411	1,240,000
Japan	20	9	33,800	90	40	169,000
Korea, Republic of	60	26	71,100	516	226	601,000
Mexico	83	40	232,000	863	366	2,030,000
Netherlands	--	--	--	380	169	208,000
Poland	--	--	--	203	58	446,000
Turkey	60	27	119,000	1,810	826	3,600,000
United Kingdom	--	--	--	360	175	456,000
Other (7 countries)	80	36	66,600	206	97	335,000
Total	438	206	752,000	5,800	2,630	10,200,000
Total ferrosilicon	1,190	669	2,060,000	12,200	6,680	21,600,000
Metal:						
More than 99.99% silicon:						
China	599	599	16,900,000	7,930	7,930	226,000,000
Germany	255	255	8,740,000	4,020	4,020	139,000,000
Hong Kong	149	149	3,490,000	653	653	19,400,000
Italy	28	28	1,350,000	219	219	12,500,000
Japan	1,380	1,380	71,000,000	8,350	8,350	435,000,000
Korea, Republic of	79	79	3,970,000	2,310	2,310	108,000,000
Malaysia	26	26	3,200,000	336	336	38,500,000
Norway	--	--	--	245	245	11,600,000
Singapore	1	1	15,200	1,050	1,050	18,400,000
Taiwan	287	287	9,240,000	4,270	4,270	140,000,000
Other (39 countries)	16	16	1,140,000	354	354	22,300,000
Total	2,820	2,820	119,000,000	29,700	29,700	1,170,000,000
99.00%–99.99% silicon:						
China	--	--	--	23	23	56,800
India	--	--	--	1	1	5,760
Japan	--	--	--	2	2	3,150
Mexico	21	20	60,400	53	53	150,000
Saudi Arabia	--	--	--	9	8	12,000
Taiwan	--	--	--	4	4	18,100
Thailand	--	--	--	7	7	9,650
Turkey	--	--	--	9	9	12,600
Total	21	20	60,400	108	107	268,000
Other silicon:						
Austria	--	--	--	21	21	28,200

See footnotes at end of table.

TABLE 3—Continued
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN SEPTEMBER 2014^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–September ³		
				Gross weight	Contained weight	Value
Metal—Continued:						
Other silicon:						
Belgium	--	--	--	133	129	\$143,000
Canada	113	110	\$288,000	964	936	2,550,000
China	--	--	--	51	49	67,300
Germany	12	12	16,200	33	32	47,200
Korea, Republic of	--	--	--	113	110	187,000
Mexico	2	1	10,700	478	465	1,520,000
South Africa	--	--	--	59	57	119,000
Taiwan	--	--	--	26	25	250,000
United Kingdom	2	2	24,400	78	75	175,000
Others (13 countries)	--	--	--	40	39	161,000
Total	129	125	339,000	2,000	1,940	5,240,000
Total silicon metal	2,970	2,970	119,000,000	31,800	31,700	1,180,000,000

-- Zero.

¹Presentation of monthly data is based on the "January–September" 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.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN SEPTEMBER 2014^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–September ³		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55%–80% silicon, more than 3% Ca:						
Brazil	--	--	--	296	223	\$455,000
Canada	19	14	\$49,600	39	25	61,300
China	119	85	165,000	5,290	3,960	6,800,000
France	1	(4)	3,470	162	103	406,000
Germany	--	--	--	22	15	27,900
Norway	--	--	--	41	28	136,000
South Africa	--	--	--	396	271	830,000
Total	139	100	218,000	6,240	4,630	8,720,000
55%–80% silicon, other:						
Brazil	--	--	--	1,820	1,350	2,570,000
Canada	869	638	2,040,000	8,030	5,870	19,900,000
China	13,100	9,870	17,900,000	53,600	40,400	73,300,000
France	207	143	636,000	1,790	1,210	5,310,000
Iceland	609	476	803,000	8,850	6,780	12,600,000
India	82	64	141,000	785	613	1,660,000
Russia	--	--	--	65,800	50,300	95,900,000
South Africa	279	188	646,000	1,710	1,240	3,230,000
Spain	518	394	860,000	3,160	2,390	5,110,000
Venezuela	--	--	--	10,400	7,800	14,700,000
Other (6 countries)	773	586	1,310,000	2,300	1,700	6,140,000
Total	16,400	12,400	24,300,000	158,000	120,000	240,000,000
80%–90% ferrosilicon, Germany	53	44	51,100	151	125	147,000
Magnesium ferrosilicon:						
Argentina	99	49	123,000	878	412	1,020,000
Brazil	26	11	46,900	714	324	1,210,000
Canada	955	439	1,950,000	9,710	4,410	18,300,000
China	40	18	60,600	447	200	832,000
France	--	--	--	1	(4)	2,600
Germany	10	4	30,300	30	14	57,000
India	20	10	36,000	1,660	796	2,870,000
Norway	286	137	559,000	2,460	1,180	5,000,000
Total	1,440	669	2,810,000	15,900	7,330	29,300,000
Other ferrosilicon:						
Brazil	--	--	--	19	10	31,500
Canada	1,480	492	1,660,000	10,200	3,580	12,000,000
China	36	17	68,000	441	241	832,000
Germany	4	1	18,400	23	9	106,000
Poland	--	--	--	38	17	60,700
Russia	12	6	17,800	26	12	39,800
Vietnam	--	--	--	199	151	280,000
Total	1,530	517	1,770,000	11,000	4,020	13,300,000
Total ferrosilicon	19,600	13,700	29,100,000	191,000	136,000	292,000,000
Metal:						
More than 99.99% silicon:						
Brazil	--	--	--	489	489	1,460,000
China	13	13	283,000	61	61	1,480,000
Germany	105	105	4,390,000	765	765	43,000,000
Italy	--	--	--	6	6	372,000
Japan	8	8	871,000	127	127	10,800,000
Korea, Republic of	(4)	(4)	4,310	19	19	1,230,000
Norway	1	1	65,800	6	6	361,000
Singapore	2	2	2,820	2	2	18,800

See footnotes at end of table.

TABLE 4—Continued
 U.S. IMPORTS OF FERROSILICON AND SILICON METAL IN SEPTEMBER 2014^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	January–September ³		
				Gross weight	Contained weight	Value
Metal—Continued:						
Spain	--	--	--	4	4	\$37,500
Taiwan	10	10	\$291,000	58	58	1,640,000
Other (9 countries)	(4)	(4)	106,000	5	5	869,000
Total	140	140	6,010,000	1,540	1,540	61,300,000
99.00%–99.99% silicon:						
Australia	1,670	1,530	4,300,000	13,700	13,400	37,000,000
Brazil	2,900	2,870	7,680,000	25,100	24,800	66,600,000
Canada	1,030	1,020	2,630,000	4,530	4,500	11,300,000
France	540	535	1,700,000	3,200	3,180	9,050,000
Laos	--	--	--	540	535	1,400,000
Malaysia	--	--	--	120	119	270,000
Norway	888	882	3,020,000	5,180	5,120	17,500,000
South Africa	2,780	2,760	7,750,000	27,600	27,300	74,800,000
Spain	--	--	--	1,220	1,210	3,250,000
Thailand	804	798	2,080,000	5,410	5,370	12,400,000
Other (6 countries)	(4)	(4)	9,890	140	62	290,000
Total	10,600	10,400	29,200,000	86,700	85,700	234,000,000
Other silicon:						
Australia	--	--	--	480	473	1,370,000
Belgium	--	--	--	21	21	47,100
Brazil	653	644	1,670,000	6,280	6,190	16,200,000
Canada	2,360	2,330	6,290,000	9,180	9,050	24,100,000
China	--	--	--	191	102	269,000
France	--	--	--	494	488	1,310,000
Norway	112	108	150,000	598	580	1,140,000
South Africa	--	--	--	40	40	96,600
Thailand	--	--	--	216	213	546,000
United Kingdom	--	--	--	36	34	87,700
Other (4 countries)	--	--	--	54	39	144,000
Total	3,130	3,080	8,110,000	17,600	17,200	45,200,000
Total silicon metal	13,900	13,600	43,300,000	106,000	104,000	340,000,000

-- Zero.

¹Presentation of monthly data is based on the "January–September" 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.