

Mineral Industry Surveys

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SILICON IN SEPTEMBER 2011

Preliminary data for September 2011 indicate that domestic production and net shipments of total silicon materials (ferrosilicon plus silicon metal), on a gross-weight basis, were 5% lower and slightly higher, respectively, than those in August 2011. Ending stocks were slightly less than those at the end of August. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys.

Production-related statistics for the individual categories of ferrosilicon and silicon metal were concealed to avoid disclosing company proprietary data. Totals for both categories are listed on table 1.

On a gross-weight basis, U.S. ferrosilicon and silicon metal exports in August 2011 were 12% lower and 27% lower,

respectively, than those in July 2011. U.S. ferrosilicon and silicon metal exports in the first 8 months of 2011 were 37% higher and 40% higher, respectively, than those during the same period in 2010.

On a gross-weight basis, U.S. ferrosilicon and silicon metal imports in August 2011 were 110% higher and 17% higher, respectively, than those in July 2011. U.S. ferrosilicon and silicon metal imports in the first 8 months of 2011 were 4% lower and 24% higher, respectively, than those during the same period in 2010.

Prices

Prices for silicon materials in September 2011, in cents per pound, silicon content, are listed below.

50% Ferrosilicon prices¹

<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
106.00–110.00	106.00–108.00–110.00

75% Ferrosilicon prices²

<u>Price Range</u>	<u>Average Price</u>
102.00–104.00	102.65

Silicon metal prices²

<u>Price Range</u>	<u>Average Price</u>
155.00–159.00	156.63

¹Source: Ryan's Notes, North American transaction price. Average prices reported for the price range.

²Source: Platts Metals Week, dealer import price. Average price reported for all transactions during the month.

TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2011^{1,2}

(Metric tons)

Material	Gross production ³		Net shipments		Stocks,
	September	Year to date ⁴	September	Year to date ⁴	September 30
Ferrosilicon, all grades ⁵	W	W	W	W	W
Silicon metal, excludes semiconductor grades	W	W	W	W	W
Total silicon materials	36,900	346,000	29,900	275,000	38,800

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits.

²Includes U.S. Geological Survey estimates.

³Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

⁴May include revisions to previously published data.

⁵Includes miscellaneous silicon alloys and other silicon products.

TABLE 2
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2011^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
More than 55% silicon:						
Brazil	--	--	--	141	87	\$322,000
Canada	1,160	693	\$567,000	12,100	7,270	7,780,000
Italy	--	--	--	380	292	757,000
Japan	181	137	376,000	747	580	1,570,000
Mexico	136	82	307,000	1,530	920	3,350,000
Netherlands	74	57	151,000	274	247	461,000
Singapore	--	--	--	34	22	81,200
Spain	120	90	270,000	140	105	308,000
Sweden	--	--	--	95	71	191,000
Turkey	80	51	235,000	160	109	469,000
Other (6 countries)	(3)	(3)	3,840	61	42	121,000
Total	1,750	1,110	1,910,000	15,700	9,750	15,400,000
Other ferrosilicon:						
Belgium	--	--	--	721	360	1,590,000
Brazil	20	10	41,800	102	48	214,000
Canada	368	184	446,000	1,330	663	2,130,000
Japan	140	68	206,000	1,070	517	1,940,000
Korea, Republic of	144	64	192,000	578	257	767,000
Mexico	134	67	333,000	995	374	1,880,000
Portugal	--	--	--	200	82	440,000
Spain	--	--	--	180	82	405,000
Turkey	80	36	219,000	1,220	555	3,010,000
United Kingdom	--	--	--	117	56	292,000
Other (12 countries)	20	9	47,500	411	199	955,000
Total	906	439	1,480,000	6,920	3,190	13,600,000
Total ferrosilicon	2,650	1,550	3,400,000	22,600	12,900	29,000,000

See footnotes at end of table.

TABLE 2—Continued
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2011^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
China	1,360	XX	\$58,300,000	11,600	XX	\$519,000,000
Germany	372	XX	17,200,000	3,740	XX	172,000,000
Hong Kong	39	XX	1,110,000	1,740	XX	30,300,000
Japan	1,200	XX	61,100,000	8,790	XX	459,000,000
Korea, Republic of	233	XX	13,400,000	1,790	XX	108,000,000
Malaysia	34	XX	4,440,000	332	XX	31,600,000
Norway	180	XX	8,720,000	3,730	XX	185,000,000
Singapore	241	XX	12,300,000	2,440	XX	123,000,000
Taiwan	477	XX	20,500,000	3,090	XX	135,000,000
Ukraine	35	XX	1,360,000	601	XX	25,900,000
Other (40 countries)	66	XX	4,710,000	797	XX	60,300,000
Total	4,230	4,230 ^c	203,000,000	38,700	38,700 ^c	1,850,000,000
99.00%–99.99% silicon:						
Belgium	--	--	--	41	41	68,600
China	--	--	--	101	100	170,000
Germany	84	83	246,000	86	85	249,000
Japan	261	259	768,000	2,220	2,200	6,530,000
Korea, Republic of	--	--	--	720	713	2,110,000
Mexico	3	3	8,740	35	35	78,200
Netherlands	47	46	138,000	968	959	2,830,000
Niger	--	--	--	47	46	138,000
Taiwan	14	14	20,200	22	22	31,000
United Kingdom	275	272	699,000	1,350	1,340	3,410,000
Other (9 countries)	--	--	--	76	75	166,000
Total	684	678	1,880,000	5,670	5,620	15,800,000
Other silicon:						
Canada	15	14	29,500	3,260	3,170	10,700,000
China	410	393	2,300,000	626	603	2,750,000
Germany	--	--	--	76	73	112,000
Hong Kong	158	154	209,000	1,120	1,090	1,740,000
Japan	326	317	599,000	3,840	3,690	12,300,000
Korea, Republic of	2	2	2,730	708	688	1,330,000
Mexico	3	3	13,800	53	51	114,000
Taiwan	55	53	72,500	302	293	776,000
United Arab Emirates	--	--	--	100	97	332,000
United Kingdom	57	56	147,000	230	224	577,000
Other (19 countries)	1	1	19,200	131	127	370,000
Total	1,030	994	3,390,000	10,400	10,100	31,100,000
Total silicon metal	5,950	5,910	208,000,000	54,800	54,400	1,900,000,000

^cEstimated. XX Not applicable. -- Zero.

¹Countries listed are the leading exporters in terms of year-to-date quantities (gross weight).

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 3
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2011^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Ferrosilicon:						
55%–80% silicon, more than 3% Ca:						
Belgium	--	--	--	23	14	\$85,300
Brazil	321	194	\$790,000	3,410	2,060	9,560,000
China	378	280	609,000	2,020	1,470	3,070,000
France	--	--	--	293	184	757,000
India	--	--	--	18	13	40,800
Spain	--	--	--	71	47	192,000
Total	699	473	1,400,000	5,830	3,790	13,700,000
55%–80% silicon, other:						
Brazil	196	147	368,000	518	387	1,040,000
Canada	1,100	809	2,990,000	8,080	5,910	20,700,000
China	13,100	9,940	20,800,000	37,700	28,300	59,500,000
France	126	84	334,000	1,780	1,290	4,390,000
Germany	95	69	356,000	472	342	2,530,000
Norway	--	--	--	653	496	814,000
Russia	11,300	8,560	17,600,000	50,800	38,600	80,500,000
South Africa	--	--	--	1,190	841	2,150,000
Ukraine	--	--	--	1,270	974	2,040,000
Venezuela	3,720	2,790	5,770,000	12,900	10,000	20,200,000
Other (5 countries)	17	13	65,500	576	418	1,420,000
Total	29,600	22,400	48,300,000	116,000	87,500	195,000,000
80%–90% silicon, Germany	--	--	--	171	138	388,000
More than 90% silicon, Denmark	--	--	--	8	7	8,970
Magnesium ferrosilicon:						
Argentina	56	22	173,000	539	266	1,560,000
Brazil	87	37	238,000	870	407	1,930,000
Canada	958	436	1,950,000	7,550	3,440	15,100,000
China	171	75	387,000	595	275	1,230,000
France	36	17	56,300	273	133	414,000
Germany	1	1	4,940	82	39	223,000
Iceland	--	--	--	1,030	479	2,230,000
Japan	--	--	--	31	14	192,000
Korea, Republic of	--	--	--	133	60	277,000
Norway	752	397	892,000	757	399	915,000
Other (1 country)	--	--	--	(3)	(3)	3,620
Total	2,060	985	3,700,000	11,900	5,510	24,000,000
Other ferrosilicon:						
Brazil	--	--	--	22	20	124,000
Canada	585	130	797,000	5,640	1,430	7,330,000
China	--	--	--	2,990	529	2,860,000
France	--	--	--	28	14	75,000
Poland	--	--	--	19	10	33,800
Total	585	130	797,000	8,700	2,000	10,400,000
Total ferrosilicon	33,000	24,000	54,200,000	143,000	99,000	244,000,000

See footnotes at end of table.

TABLE 3—Continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2011^{1,2}

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
Metal:						
More than 99.99% silicon:						
Canada	2	XX	\$80,700	248	XX	\$8,020,000
China	5	XX	563,000	123	XX	7,870,000
Germany	227	XX	16,300,000	1,940	XX	143,000,000
Italy	34	XX	2,870,000	236	XX	17,900,000
Japan	46	XX	3,040,000	292	XX	28,900,000
Korea, Republic of	14	XX	337,000	181	XX	11,300,000
Malaysia	6	XX	166,000	8	XX	249,000
Norway	--	--	--	142	XX	6,610,000
Russia	8	XX	765,000	69	XX	6,230,000
Taiwan	11	XX	495,000	92	XX	5,000,000
Other (12 countries)	1	XX	236,000	22	XX	3,290,000
Total	355	355^e	24,900,000	3,350	3,350^e	238,000,000
99.00%–99.99% silicon:						
Australia	356	354	1,180,000	6,020	5,980	20,400,000
Brazil	2,240	2,230	7,670,000	40,000	39,700	125,000,000
Canada	1,460	1,450	4,110,000	6,710	6,660	19,000,000
France	360	357	1,260,000	1,810	1,790	6,300,000
Laos	--	--	--	1,890	1,880	3,990,000
Norway	592	588	2,600,000	6,490	6,420	28,000,000
Philippines	--	--	--	293	291	962,000
South Africa	4,290	4,260	14,900,000	24,000	23,800	75,400,000
Spain	540	538	1,910,000	5,050	5,020	17,300,000
Thailand	1,530	1,520	4,170,000	6,070	6,030	16,400,000
Other (4 countries)	49	10	111,000	401	135	1,050,000
Total	11,400	11,300	38,000,000	98,800	97,700	314,000,000
Other silicon:						
Australia	614	378	1,380,000	806	567	2,070,000
Brazil	4,020	3,980	13,500,000	18,600	18,200	55,300,000
Canada	1,040	1,020	2,610,000	9,560	9,390	23,100,000
China	60	59	140,000	382	356	928,000
France	40	40	137,000	3,170	3,100	9,640,000
Germany	137	131	149,000	386	372	482,000
Japan	7	7	25,500	246	138	609,000
Norway	116	101	461,000	1,720	1,650	3,290,000
Russia	--	--	--	120	119	384,000
United Kingdom	--	--	--	108	105	292,000
Other (5 countries)	--	--	--	127	118	401,000
Total	6,040	5,720	18,400,000	35,200	34,100	96,400,000
Total silicon metal	17,800	17,400	81,200,000	137,000	135,000	649,000,000

^eEstimated. XX Not applicable. -- Zero.

¹Presentation of monthly data is based on the year-to-date 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.