

# Mineral Industry Surveys

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## ALUMINUM IN DECEMBER 2012

Domestic primary aluminum production in December 2012 was 171,000 metric tons (t). The average daily production was 5,520 t, essentially the same as that during the previous month but 4% less than that in December 2011.

Total aluminum recovered from scrap in December 2012 was 262,000 t, 8% less than the amount recovered in November but 10% more than the amount recovered in December 2011. Of this, 135,000 t of aluminum was recovered from new scrap, 11% less than the amount in November but 8% more than the amount in December 2011. Aluminum recovered from old scrap in December 2012 totaled 127,000 t, 4% less than the amount in November but 11% more than the amount in December 2011.

Primary aluminum production for the full year 2012 was 2.07 million metric tons (Mt), 4% more than that in 2011. Total aluminum recovered from scrap in 2012 was 3.41 Mt, 10% more than that in 2011. Of this, 1.79 Mt of aluminum was recovered from new scrap, 8% more than that in 2011, and 1.63 Mt of aluminum was recovered from old scrap, 12% more than that in 2011.

Total imports of aluminum (table 8) in 2012 were essentially unchanged compared with those of 2011. Imports of crude metal and alloys increased by 3%, imports of semifabricated aluminum products decreased by 3%, and imports of aluminum scrap increased slightly. The leading sources of total aluminum products in 2012 were Canada (59%), Russia (7%), and the United Arab Emirates (6%). Imports of crude metal and alloys from Canada accounted for 44% of all aluminum imported during the year.

Total exports of aluminum (table 9) increased slightly during 2012 compared with those of 2011. Exports of crude metal and alloys increased by 15%, exports of semifabricated aluminum

products increased by 12%, but exports of aluminum scrap decreased by 5%. The leading destinations of total aluminum products in 2012 were China (41%), Mexico (20%), and Canada (17%). Exports of scrap to China accounted for 40% of all aluminum exports during the year.

Pennex Aluminum Co., a subsidiary of Metal Exchange Corp. (St. Louis, MO) was planning to restart a 45,000-metric-ton-per-year secondary smelter in Greenville, PA. Pennex leased the smelter from ILSCO Extrusions Inc., a subsidiary of ILSCO Corp. (Cincinnati, OH), which acquired it in 2010 after the prior owner, Signature Aluminum Co., filed for bankruptcy in 2009. The smelter would produce extrusion billet for ILSCO and other customers when restarted during the second quarter of the year (American Metal Market, 2013; ILSCO Extrusions Inc., 2013).

### Update

The monthly average U.S. market price of primary aluminum ingot increased to \$1.051 per pound in December from \$0.983 per pound in November before decreasing to \$1.031 per pound in January 2013.

### References Cited

- American Metal Market, 2013, Pennex to restart PA aluminum billet plant: American Metal Market, v. 120, no. 6–2, February 5, p. 6.  
ILSCO Extrusions Inc., 2013, ILSCO Extrusions Inc. and Pennex Aluminum reach long term agreements: Greenville, PA, ILSCO Extrusions Inc. press release, February 1. (Accessed February 19, 2013, at <http://www.ilscosextrusions.com/press/ilscosextrusions-press-release-02012013.pdf>).

TABLE 1  
COMPONENTS OF ALUMINUM SUPPLY<sup>1</sup>

(Thousand metric tons)

Period	Primary production	Secondary recovery <sup>2</sup>			Imports for consumption			Total new supply <sup>3</sup>	Stocks, end of period <sup>4</sup>
		New	Old	Total	Metals and alloys, crude	Plates, sheets, bars, etc.	Total		
2011	1,986	1,650	1,450	3,110	2,830	880	3,710	8,800	1,060
2011, December	177	125	114	239	245	70	315	731	1,060
2012:									
January	178	145	125	270	281	70	351	800	1,090
February	167	146	131	276	284	77	360	804	1,060
March	179	154	139	292	248	83	332	803	1,060
April	174	150	133	283	231	78	309	766	1,090
May	179	154	143	298	293	82	376	852	1,110
June	173	150	138	289	240	78	318	780	1,100
July	177	152	137	289	233	80	313	780	1,140
August	171	155	145	300	234	65	300	770	1,130
September	164	140	137	277	214	60	273	715	1,110
October	170	155	138	293	204	62	265	728	1,130 <sup>r</sup>
November	166	151	132	284	196	62	258	707	1,085
December	171	135	127	262	244	59	303	736	NA
January–December	2,070	1,790	1,630	3,410	2,900	855	3,760	9,240	NA

<sup>r</sup>Revised. NA Not available.

<sup>1</sup>Data are rounded to no more than three significant digits, except "Primary production"; may not add to totals shown.

<sup>2</sup>Metallic recovery from purchased, tolled, or imported scrap, expanded for full coverage of industry.

<sup>3</sup>Primary production, secondary recovery, and imports for consumption.

<sup>4</sup>Inventory levels reflect total for both U.S. and Canadian producers; data from the Aluminum Association Inc.

TABLE 2  
ESTIMATED FULL COVERAGE CONSUMPTION OF AND METALLIC RECOVERY FROM  
PURCHASED NEW AND OLD ALUMINUM SCRAP<sup>1</sup>

(Thousand metric tons)

Period	Secondary smelters		Independent mill fabricators		Foundries		Other consumers		Total	
	Consumption	Metal recovery	Consumption	Metal recovery	Consumption	Metal recovery	Consumption	Metal recovery	Consumption	Metal recovery
2011	2,250	1,650	1,560	1,410	61	49	6	6	3,880	3,110
2011, December	182	135	109	99	5	4	1	1	298	239
2012:										
January	208	149	128	116	5	4	1	1	342	270
February	211	155	129	117	5	4	1	1	346	276
March	216	157	143	130	5	4	1	1	365	292
April	217	156	129	117	10	9	1	1	356	283
May	214	156	146	133	10	9	1	1	371	298
June	227	167	126	113	10	9	1	1	363	289
July	223	163	130	117	10	9	1	1	363	289
August	227	168	136	123	10	9	1	1	373	300
September	226	164	116	104	10	9	1	1	351	277
October	222	163	133	121	10	9	1	1	366	293
November	225	164	121	110	10	9	1	1	357	284
December	203	155	108	98	10	9	1	1	322	262
January–December	2,620	1,920	1,550	1,400	103	91	7	7	4,270	3,410

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 3  
CONSUMPTION OF AND RECOVERY FROM PURCHASED  
NEW AND OLD ALUMINUM SCRAP IN DECEMBER 2012<sup>1</sup>

(Metric tons)

	Consumption		Calculated metallic recovery	
	Tabulated reports	Estimated full coverage	Tabulated reports	Estimated full coverage
Secondary smelters	169,000	203,000	129,000	155,000
Independent mill fabricators	98,900	108,000	89,100	97,700
Foundries	8,110	9,730	7,180	8,610
Other consumers	481	577	481	577
Total	277,000	322,000	226,000	262,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4  
PURCHASED AND TOLL-TREATED ALUMINUM-BASE SCRAP AND SWEATED PIG IN DECEMBER 2012<sup>1</sup>

(Metric tons)

	December			January–December <sup>2</sup>		
	Stocks, opening <sup>2</sup>	Net receipts <sup>3</sup>	Melted or consumed	Stocks, closing	Net receipts <sup>3</sup>	Melted or consumed
New scrap:						
Extrusion	19,100	40,800	39,100	20,800	472,000	471,000
Can stock clippings	24,400	22,100	21,500	25,000	278,000	277,000
Other wrought sheet/clippings	9,030	33,200	31,300	10,900	448,000	451,000
Casting	2,360	5,690	5,510	2,540	67,000	66,800
Borings and turnings	4,330	11,100	11,000	4,530	140,000	140,000
Dross and skimmings	16,300	41,600	41,600	16,300	646,000	647,000
Total new scrap	75,500	155,000	150,000	80,100	2,050,000	2,050,000
Old scrap:						
Used castings	6,720	24,300	24,000	7,010	317,000	316,000
Used extrusion	6,500	13,200	12,600	7,110	160,000	162,000
Used cans (shredded, loose, baled)	30,700	59,000	58,100	31,600	749,000	748,000
Other wrought products	15,400	28,300	23,900	19,800	309,000	299,000
Fragmentized shredder (auto shredder)	1,580	8,080	7,990	1,680	95,200	95,000
Total old scrap	60,800	133,000	127,000	67,100	1,630,000	1,620,000
Sweated pig	55	161	33	183	519	390
Total all classes	136,000	288,000	277,000	147,000	3,680,000	3,670,000

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include revisions to previously published data.

<sup>3</sup>Includes data on imported aluminum-base scrap.

TABLE 5  
ALUMINUM ALLOYS PRODUCED AT SECONDARY SMELTERS IN THE UNITED STATES IN DECEMBER 2012<sup>1,2</sup>

(Metric tons)

	December				January–December <sup>3</sup>	
	Stocks, opening <sup>3</sup>	Production	Net shipments	Stocks, closing	Production	Net shipments
Die-cast alloys:						
13% Si, 360, etc. (0.6% Cu, max.)	2,910	3,840	3,980	2,770	48,700	48,700
380 and variations	10,500	13,300	13,300	10,500	199,000	199,000
Sand and permanent mold:						
95/5 Al-Si, 356, etc. (0.6% Cu, max.)	1,900	4,240	4,240	1,900	51,300	51,300
No. 319 and variations	3,560	5,630	5,630	3,550	69,100	69,000
F-132 alloy and variations	450	439	439	450	5,310	5,310
Al-Zn alloys	99	143	143	99	1,950	1,950
Al-Si alloys (0.6% to 2.0% Cu)	111	292	292	111	3,560	3,560
Al-Cu alloys (1.5% Si, max.)	170	162	162	170	2,270	2,270
Other <sup>4</sup>	6,130	7,070	6,550	6,650	87,100	82,500
Wrought alloys, extrusion billets	17,100	39,000	38,900	17,200	508,000	507,000
Total all alloys	42,900	74,100	73,600	43,400	976,000	970,000
Less:						
Primary aluminum consumed	XX	8,210	XX	XX	122,000	XX
Primary silicon consumed	XX	1,760	XX	XX	22,900	XX
Other alloying ingredients consumed	XX	1,170	XX	XX	15,800	XX
Net metallic recovery from aluminum scrap and sweated pig consumed in production of secondary aluminum ingot <sup>5</sup>	XX	62,900	XX	XX	815,000	XX

XX Not applicable.

<sup>1</sup>Excludes integrated aluminum companies.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Includes alloys No. 12, Al-Mg, Al-Si-Cu-Ni, aluminum-base hardeners, variations of these alloys, plus other aluminum alloys.

<sup>5</sup>No allowance made for melt-loss of primary aluminum and alloying ingredients.

TABLE 6  
AVERAGE PRICE OF ALUMINUM IN THE UNITED STATES  
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	Midwest U.S. market price	LME cash price Grade A
2011:		
December	98.150	91.694
January–December	116.121	108.768
2012:		
January	103.375	97.244
February	107.000	99.953
March	107.900	99.002
April	101.563	92.815
May	100.100	90.727
June	95.375	85.481
July	95.125	84.997
August	93.850	83.359
September	103.250	93.146
October	100.813	89.580
November	98.300	88.123
December	105.125	94.635
January–December	100.981	91.589

Source: Platts Metals Week.

TABLE 7  
AVERAGE BUYING PRICES FOR ALUMINUM SCRAP

(Cents per pound)

Month	Used beverage cans	Mixed low copper clips	Old sheet	Old cast	Turnings (clean and dry)
2011:					
December	73.18	73.03	67.76	70.26	68.13
January–December	86.68	81.94	74.96 <sup>1</sup>	76.80 <sup>1</sup>	75.68
2012:					
January	77.30	75.60	70.98	72.28	69.88
February	79.83	77.93	73.60	75.85	72.88
March	79.86	78.41	74.14	76.36	73.66
April	75.65	76.65	73.50	76.05	72.65
May	74.27	76.41	72.91	75.73	73.25
June	69.76	74.02	69.48	71.43	70.14
July	70.81	71.02	66.83	69.74	68.10
August	70.35	70.59	65.37	69.39	66.74
September	77.82	73.87	69.21	72.00	69.63
October	75.72	74.37	70.43	73.33	70.09
November	74.33	73.35	69.50	73.00	69.10
December	80.08	75.72	72.44	74.72	70.44
January–December	75.48	74.83	70.70	73.32	70.55

<sup>1</sup>Average price for April–December; prices for January through March were not available.

Source: American Metal Market.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF ALUMINUM IN DECEMBER 2012<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	December	January– December	December	January– December	December	January– December	December	January– December
Argentina	13,600	77,500	(2)	4	--	--	13,600	77,500
Australia	2,840	26,400	(2)	47	--	40	2,840	26,500
Austria	--	8	1,930	24,500	--	22	1,930	24,500
Bahamas, The	--	--	--	--	212	2,890	212	2,890
Bahrain	2,550	25,900	2,670	23,500	--	14	5,230	49,400
Belgium	58	798	191	2,350	--	193	249	3,340
Brazil	--	9,200	819	18,300	--	2,860	819	30,400
Canada	171,000	1,910,000	13,900	293,000	25,500	350,000	211,000	2,550,000
Chile	--	--	--	49	559	5,310	559	5,360
China	45	1,310	9,040	109,000	64	166	9,150	111,000
Colombia	467	1,420	212	2,200	501	2,380	1,180	6,000
Costa Rica	--	447	(2)	24	360	3,830	360	4,300
Egypt	--	--	310	3,370	--	--	310	3,370
El Salvador	--	201	30	89	332	3,220	362	3,510
France	5	3,670	222	4,190	--	38	227	7,890
Germany	33	767	8,210	80,300	13	216	8,250	81,300
Greece	--	--	1,190	14,900	--	18	1,190	14,900
Guatemala	--	219	--	--	1,310	13,600	1,310	13,800
Honduras	--	--	--	--	244	3,180	244	3,180
Hong Kong	--	--	599	5,170	--	--	599	5,170
India	--	2,030	1,470	16,100	--	6	1,470	18,200
Indonesia	--	--	4,580	77,300	--	85	4,580	77,400
Italy	555	5,940	587	5,620	246	774	1,390	12,300
Japan	9	40	335	4,270	35	1,660	379	5,970
Korea, Republic of	4,000	15,500	247	3,800	--	1,040	4,240	20,300
Malaysia	--	471	254	4,880	--	--	254	5,350
Mexico	534	35,600	2,120	30,400	9,280	128,000	11,900	194,000
New Zealand	1,610	19,700	14	34	--	119	1,620	19,800
Qatar	8,790	132,000	--	19	--	--	8,790	132,000
Romania	--	249	391	9,370	21	1,130	412	10,700
Russia	14,500	291,000	1,090	15,000	--	--	15,600	306,000
Saudi Arabia	171	483	2	2	1,600	24,500	1,770	25,000
South Africa	--	4,580	3,760	59,200	--	--	3,760	63,800
Sweden	--	98	554	5,510	--	8	554	5,610
Switzerland	237	348	1,380	5,200	--	--	1,620	5,550
Taiwan	17	62	558	6,300	--	--	575	6,370
Tajikistan	--	13,900	--	--	--	--	--	13,900
United Arab Emirates	17,700	254,000	(2)	13	39	1,170	17,700	256,000
United Kingdom	31	654	1,370	11,800	987	7,060	2,380	19,500
Venezuela	3,850	46,000	20	651	121	2,600	3,990	49,300
Other	962	19,700	1,190	18,800	2,270	32,500	4,420	71,000
Total	244,000	2,900,000	59,200	855,000	43,700	589,000	347,000	4,350,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9  
U.S. EXPORTS OF ALUMINUM IN DECEMBER 2012<sup>1</sup>

(Metric tons)

Country or territory	Metals and alloys, crude		Plates, sheets, bars, etc.		Scrap		Total	
	December	January– December	December	January– December	December	January– December	December	January– December
Australia	35	520	439	3,280	--	45	474	3,840
Belgium	1	43	236	4,660	--	342	237	5,040
Brazil	(2)	112	3,410	11,800	1	3,400	3,410	15,300
Canada	6,430	98,400	23,000	401,000	5,020	102,000	34,500	602,000
Chile	--	1,430	724	7,650	42	71	766	9,150
China	357	4,500	3,650	41,500	106,000	1,380,000	110,000	1,430,000
Colombia	518	1,020	585	2,080	--	65	1,100	3,170
France	398	3,270	1,910	20,300	58	288	2,370	23,900
Germany	295	3,820	968	11,300	30	472	1,290	15,600
Guatemala	--	7	2,170	17,100	--	93	2,170	17,200
Hong Kong	3	152	219	2,040	2,340	30,100	2,570	32,300
India	52	368	224	1,720	4,430	56,500	4,710	58,600
Indonesia	--	114	179	2,390	1,120	4,530	1,300	7,040
Ireland	19	56	17	657	--	--	36	713
Israel	135	1,070	987	7,990	--	18	1,120	9,080
Italy	--	32	348	3,680	--	20	348	3,740
Japan	43	948	1,710	17,400	378	9,690	2,130	28,100
Jordan	--	--	931	9,600	--	--	931	9,600
Korea, Republic of	(2)	301	1,740	20,600	12,900	189,000	14,600	210,000
Kuwait	--	25	1,040	7,190	--	--	1,040	7,210
Malaysia	1	35	314	2,840	119	5,340	434	8,210
Mexico	15,500	236,000	21,300	337,000	6,190	130,000	42,900	702,000
Netherlands	2	46	63	912	--	709	65	1,670
New Zealand	(2)	19	59	2,420	1	7	60	2,440
Norway	--	1	1	127	271	1,720	272	1,840
Pakistan	--	--	--	76	1,680	27,000	1,680	27,100
Panama	--	23	280	4,170	5	33	285	4,220
Romania	13	872	22	506	--	--	35	1,380
Saudi Arabia	--	63	4,770	64,800	--	--	4,770	64,800
Singapore	207	1,200	276	4,340	20	268	503	5,800
Spain	--	7	81	1,580	21	214	102	1,800
Taiwan	379	2,700	751	10,700	5,290	73,600	6,420	87,000
Thailand	--	9	329	1,820	301	6,380	630	8,200
Tunisia	--	17	547	2,970	--	--	547	2,990
Turkey	6	163	671	3,340	--	--	677	3,510
United Arab Emirates	--	1	1,320	11,800	63	380	1,380	12,100
United Kingdom	42	987	965	17,500	178	700	1,190	19,200
Vietnam	--	--	3	203	400	6,650	403	6,850
Other	84	2,010	1,770	19,600	188	3,740	2,040	25,400
Total	24,500	360,000	78,000	1,080,000	147,000	2,040,000	250,000	3,480,000

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.