

Mineral Industry Surveys

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BAUXITE AND ALUMINA IN THE FOURTH QUARTER 2012

Imports of crude and dried bauxite in the fourth quarter of 2012 were 2.53 million metric tons (Mt), 3% lower than those in the third quarter of 2012 and slightly lower than those in the fourth quarter of 2011. Jamaica (47%), Guinea (33%), and Brazil (17%) were the leading sources of crude dry bauxite imports in the fourth quarter of 2012. Imports of crude and dried bauxite in 2012 were 8% higher than those in 2011. Imports in 2012 from Brazil and Guinea increased by 47% and 18%, respectively, compared with those in 2011. These increases were partially offset by decreased imports from Jamaica of 8%.

Imports of alumina during the fourth quarter of 2012 were 404,000 metric tons (t), 28% lower than those in the third quarter and 15% lower than those in the fourth quarter of 2011. The leading sources of imported alumina during the fourth quarter of 2012 were Suriname (49%), Australia (28%), and Brazil (11%). Decreased alumina imports from Australia of 76,600 t, Brazil of 32,400 t, and Jamaica of 17,400 t accounted for most of the decrease in alumina imports during the fourth quarter of 2012. Alumina imports in 2012 were 17% lower than those in 2011, with imports from Jamaica, Brazil, and Australia 88%, 10%, and 4% lower, respectively, than imports in 2011. The decrease in alumina imports in 2012 was attributed to the restart of the 540,000-metric-ton-per-year (t/yr) refinery at Burnside, LA, by Ormet Corp. in late 2011.

Exports of alumina during the fourth quarter of 2012 were 492,000 t, 4% more than those in the third quarter of 2012 and 27% higher than those in the fourth quarter of 2011. The leading destinations of alumina exported during the fourth quarter of 2012 were Canada (45%), Russia (18%), Iceland (13%), and Egypt (10%). Alumina exports in 2012 were slightly higher than those in 2011. Leading destinations for alumina exports during 2012 were Canada (44%), Iceland (14%), Georgia (13%), Russia (7%). Alumina exports to Georgia were probably re-exported to another nation in Central Asia for smelting.

Update

Rio Tinto plc announced it would modify the Gove refinery in Northern Territory, Australia, to use natural gas instead of heavy fuel oil in order to reduce costs. Rio Tinto said it had considered closing the 3.8-million-metric-ton-per-year refinery because of high fuel costs, low alumina prices, and unfavorable exchange rates but a gas supply agreement with the Northern Territory government would reduce costs enough for the refinery to be profitable. Production was to continue while a natural gas pipeline is constructed and modifications to the refinery are made. A project schedule was not released (Rio Tinto plc, 2013).

Orbite Aluminae Inc. started producing high-purity alumina at its refinery at Cap-Chat, Quebec, Canada, during the last week of December, 2012. The process developed by Orbite recovers alumina from high-alumina clay and can also recover other products such as gallium, iron oxide, rare earth elements, and high-purity silica. The refinery was ramping up to a rate of 1,800 t/yr by yearend 2013. A 540,000-t/yr refinery being constructed at Cap-Chat to produce smelter-grade alumina was scheduled to be completed by yearend 2013. Orbite's process can also use low-grade bauxite and red mud in addition to high-alumina clay (Orbite Aluminae Inc., 2013).

References Cited

- Orbite Aluminae Inc., 2013, Orbite produces first tonne of high purity alumina at plant in Cap-Chat, Quebec: Montreal, Quebec, Canada, Orbite Aluminae Inc. press release, January 22. (Accessed March 7, 2013, at <http://www.orbitealuminae.com/en/news/press-releases/orbite-produces-first-tonne-high-purity-alumina-plant-cap-chat-quebec/>.)
- Rio Tinto plc, 2013, Gove alumina refinery to continue operating as the gas to Gove project progresses: Melbourne, Victoria, Australia, Rio Tinto plc media release, February 13. (Accessed March 7, 2013, at http://www.riotinto.com/media/18435_media_releases_22546.asp.)

TABLE 1
U.S. IMPORTS AND EXPORTS OF CRUDE AND DRIED BAUXITE¹

(Metric tons)

Country	2011	2012				1st quarter– 4th quarter
		1st quarter	2d quarter	3d quarter	4th quarter	
Imports (for consumption):						
Brazil	1,760,000	580,000	776,000	812,000	421,000	2,590,000
Guinea	2,340,000	842,000	589,000	491,000	842,000	2,760,000
India	161,000	--	--	--	--	--
Jamaica	5,140,000	1,140,000	1,160,000	1,220,000 ^r	1,190,000	4,720,000
Venezuela	110,000	--	--	--	--	--
Other	29,500	6,570	90,700	94,100	83,300	275,000
Total	9,540,000	2,570,000	2,620,000	2,620,000^r	2,530,000	10,300,000
Exports:						
Canada	12,800	573	848	2,650	4,740	8,810
Colombia	236	--	--	--	--	--
Korea, Republic of	2,200	--	--	--	--	--
Mexico	6,020	797	--	--	--	797
Venezuela	160	--	--	--	--	--
Other	978	139	319	397	139	994
Total	22,400	1,510	1,170	3,050	4,880	10,600

^rRevised. -- Zero.

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

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 2
U.S. IMPORTS AND EXPORTS OF CALCINED BAUXITE, BY COUNTRY¹

(Metric tons)

Country	2012											
	2011		1st quarter		2d quarter		3d quarter		4th quarter		1st quarter-4th quarter	
	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other	Refrac- tory	Other
Imports (for consumption):												
Australia	--	87,500	--	49,400	--	43,300	--	--	--	558	--	93,200
Brazil	1,320	5,570	--	1,180	--	620	--	482	--	--	--	2,280
China	41,000	17,100	12,600	3,820	3,290	3,020	8,830	--	13,000	4,000	37,700	10,800
Greece	--	26,000	--	--	--	26,800	--	27,400	--	26,700	--	81,000
Guyana	49,000	121,000	17,700	28,400	12,600	19,400	9,970	54,200	5,760	--	46,000	102,000
Other	172	4,480	45	2,270	52	3,890	65	26,000	215	82	377	32,200
Total	91,400	262,000	30,400	85,000	15,900	97,100	18,900	108,000	19,000	31,400	84,200	321,000
Exports:												
Argentina	--	1,880	--	--	--	--	--	--	--	--	--	--
Canada	9,070	826	1,140	--	1,410	--	1,000	--	849	--	4,400	--
China	9,920	--	--	--	--	--	--	--	--	--	--	--
India	--	1,280	--	20	--	--	--	--	--	--	--	20
Malaysia	--	159	--	--	--	--	--	--	--	--	--	--
Mexico	522	3,710	121	12,200	363	--	121	--	224	--	829	12,200
United Arab Emirates	--	2,740	250	--	--	--	--	--	--	--	250	--
Other	916	329	296	--	144	447	376	2	223	7	1,040	456
Total	20,400	10,900	1,810	12,200	1,920	447	1,500	2	1,300	7	6,520	12,700

-- Zero.

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

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINA¹

(Metric tons, calcined equivalent)

Country	2011	2012				
		1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter
Imports (for consumption):²						
Australia	662,000	138,000	190,000	191,000	114,000	632,000
Brazil	268,000	60,300	55,800	78,800	46,500	241,000
Jamaica	418,000	14,200	2,000	26,300	8,830	51,300
Suriname	736,000	212,000	156,000	190,000	197,000	754,000
Other	196,000	47,700	57,600	79,700	38,300	223,000
Total	2,280,000	471,000	461,000	565,000	404,000	1,900,000
Exports:³						
Canada	848,000	209,000	164,000	189,000	220,000	781,000
China	11,400	29,400	25,400	2,340	1,540	58,700
Egypt	228	11	31,000	91	51,100	82,300
France	59,200	373	260	175	256	1,060
Georgia	56,800	114,000	28,500	85,600	5	228,000
Iceland	500,000	61,500	58,400	63,600	63,000	247,000
Mexico	80,700	26,200	25,400	23,500	21,100	96,200
Netherlands	75,800	1,240	1,420	28,500	900	32,000
Norway	29,600	50	43	41	51	185
Russia	916	212	86	31,100	88,800	120,000
Other	70,000	16,100	14,500	47,800	45,400	124,000
Total	1,730,000	457,000	349,000	471,000	492,000	1,770,000

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

²Includes imports of aluminum hydroxide reported in calcined equivalent. As shipped, aluminum hydroxide: 191,000 t metric tons (t) in 2011; 46,400 t in the first quarter of 2012; 40,600 t in the second quarter of 2012; 51,700 t in the third quarter of 2012; 41,700 t in the fourth quarter of 2012.

³Includes exports of aluminum hydroxide reported in calcined equivalent. As shipped, aluminum hydroxide: 108,000 t in 2011; 34,700 t in the first quarter of 2012; 37,000 t in the second quarter of 2012; 33,100 t in the third quarter of 2012; 29,300 t in the fourth quarter of 2012.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.