

Mineral Industry Surveys

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MAGNESIUM IN THE THIRD QUARTER 2013

U.S. magnesium exports from January through September of 2013 were 5% less than exports in the same period of 2012. Mexico (30%), Singapore (21%), Canada (19%), and Brazil (17%) were the principal destinations of total magnesium exports. Exports of alloys increased by 23%, but were offset by decreased exports of crude metal (1%), scrap (81%), and semifabricated magnesium materials (15%).

Magnesium imports for consumption in the three quarters of 2013 were 15% less than imports in the same period of 2012. Israel was the source of 68% of imported magnesium metal, down from 85% in the first 9 months of 2012. Canada (9%), Russia (8%), Brazil (7%), and Kazakhstan (7%) were the other principal sources of magnesium metal imports during the first three quarters of 2013. Scrap accounted for 38% of total magnesium imports, 41% of which came from Canada. Crude metal and alloys accounted for 33% and 27%, respectively, of all magnesium imports during the first three quarters of 2013.

The quoted U.S. magnesium import price ranges (table 2) increased slightly during the third quarter of 2013, but those in China and Europe declined slightly. However, the average price in China at the end of October was 3% higher than that at the end of September. Increased demand for magnesium by producers of ferrosilicon and other raw material was cited for the price increase (Yee, 2013a). Magnesium metal exports from China from January through September 2013 increased by

20.3% compared with those of the same period of 2012. Of the 154,000 metric tons exported during the first three quarters of 2013, 30% was shipped to the Netherlands. Japan (10%) and Canada (7%) were the other leading destinations for Chinese magnesium exports (Yee, 2013b).

The U.S. Department of Energy's (DOE) Advanced Research Projects Agency-Energy announced funding for a project to develop a method of recovering magnesium from seawater using less energy than current production methods. The 3-year project would be conducted at DOE's Pacific Northwest National Laboratory (PNNL) in Richland, WA, and cost \$2.7 million. Global Seawater Extraction Technologies, LLC and U.S. Magnesium LLC (Salt Lake City, UT) partnered with PNNL (White, 2013).

References Cited

- White, Frances, 2013, Fuel-efficient cars & planes cheaper with magnesium drawn from ocean: Richland, WA, U.S. Department of Energy, Pacific Northwest National Laboratory news release, September 19. (Accessed November 19, 2013, at <http://www.pnnl.gov/news/release.aspx?id=1009>.)
- Yee, Alvin, 2013a, China Mg export offers up on higher domestic prices: *Platts Metals Daily*, v. 2, no. 208, October 24, p. 6-7.
- Yee, Alvin, 2013b, China unwrought magnesium Sep exports fall 24%: *Platts Metals Daily*, v. 2, no. 206, October 22, p. 7.

TABLE 1
U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM¹

(Metric tons)

	2012	2013				
		January– June	July	August	September	January– September
Imports for consumption:						
Metal	16,200	6,940	1,220	1,750	1,090	11,000
Waste and scrap	20,900	8,230	1,560	1,450	1,160	12,400
Alloys (magnesium content)	12,700	6,150	958	793	1,100	9,000
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	881	394	46	64	77	581
Total	50,800	21,700	3,780	4,050	3,430	33,000
Exports:						
Metal	7,020	3,940	590	386	333	5,250
Waste and scrap	2,100	248	28	29	84	389
Alloys (gross weight)	7,310	4,410	692	577	734	6,420
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	1,870	913	79	85	133	1,210
Total	18,300	9,520	1,390	1,080	1,280	13,300

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

Source: U.S. Census Bureau.

TABLE 2
MAGNESIUM PRICES, THIRD QUARTER 2013

		Beginning of quarter	End of quarter
U.S. spot dealer import	dollars per pound	1.83–1.88	1.85–1.95
U.S. spot Western	do.	2.15–2.25	2.10–2.15
China	dollars per metric ton	2,580–2,610	2,550–2,600
European free market	do.	2,650–2,750	2,625–2,725
do. Ditto.			

Source: Platts Metals Week.