

Mineral Industry Surveys

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MAGNESIUM IN THE FOURTH QUARTER 2004

Exports of magnesium through November 2004 were about 42% lower than those in the same period of 2003. Magnesium imports through November 2004 were about 21% higher than those in the corresponding period of 2003. Primary metal represented about 34% of U.S. magnesium imports through November 2004. Russia (62%) and Israel (24%) were the principal sources of imported metal. Alloys represented about 52% of the magnesium imports through November. Canada (44%) and China (37%) were the principal sources of imported alloys.

Quoted magnesium prices are shown in the table at the bottom of the page. Prices fell in the fourth quarter about 20 cents per pound for U.S.-quoted prices and about \$100 per metric ton for prices in China and Europe. Press reports indicated that magnesium contract prices for 2005 were higher than those for 2004. Most of the aluminum rolling mills were reported to have negotiated contracts for pure magnesium at \$1.45 to \$1.56 per pound; about 45 cents per pound higher than the 2004 contract price (Platts Metals Week, 2004c). Magnesium alloy contract prices in 2005 were reported to be about \$1.45 to \$1.55 per pound, about 35 to 40 cents per pound higher than in 2004 (Platts Metals Week, 2005a).

U.S. Magnesium Corp. filed an allegation that there was a large surge in imports of magnesium alloy from China in the time between when the antidumping petition was filed and when the preliminary duties were assessed in early October. If true, this allegation could lead to duties being retroactively applied to magnesium alloy that was imported from China between July 7 and October 4, 2004. If, in the final determination, antidumping duties are assessed, the U.S. Department of Commerce,

International Trade Administration (ITA) and the U.S. International Trade Commission must also determine if the duties will be applied retroactively (Platts Metals Week, 2005b). The ITA's final decision is scheduled to be made in mid-February.

The ITA announced that it would revoke the antidumping duty order on pure magnesium imported from Canada, effective August 1, 2000. The revocation was in response to the completion of the NAFTA binational panel review of its remand decisions (U.S. Department of Commerce, International Trade Administration, 2004).

On January 14, 2005, a fire broke out at a warehouse at the Advanced Magnesium Alloys Corp. (AMACOR) magnesium recycling plant in Anderson, IN, destroying about 25% of the facility. After an investigation by local, State, and Federal investigators, it was determined that the fire was intentionally set, and a reward was offered to information leading to the arson suspect. AMACOR planned to rebuild the warehouse, and it estimated that the plant would be fully operational within about 6 months (McFeely, 2005¹; McCann, 2005).

Hydro Magnesium Inc. announced that it would increase production capacity at its magnesium plant in Becancour, Quebec, Canada, by 7,000 metric tons per year (t/yr), with construction beginning in the first quarter of 2005. The company will improve its dehydration process and add four electrolytic cells to bring the total capacity to 58,000 t/yr by the third quarter of 2006 (Hydro Magnesium Inc., 2005[§]).

¹References that include a section mark (§) are found in the Internet References Cited section.

	Unit	Beginning of quarter	End of quarter
Metals Week U.S. spot Western	Dollars per pound	\$1.70-\$1.80	\$1.55-\$1.60
Metals Week U.S. spot dealer import	do.	1.60-1.65	1.40-1.55
Metals Week European free market	Dollars per metric ton	1,950-2,050	1,850-1,900
Metal Bulletin free market	do.	1,900-2,000	1,940-1,890
Metal Bulletin China free market	do.	1,860-1,900	1,730-1,750

After completing feasibility studies on five locations for its planned 88,000-t/yr magnesium plant, Magnesium International Ltd. (MIL) selected Egypt as the location for the magnesium plant. The specific site in Egypt will be inside the new port at Ain Sokhna on the Gulf of Suez. The smelter will be owned and operated by Egyptian Magnesium Co. (EMAG), which is currently being established under Egyptian Investment Laws. EMAG will get a number of benefits from locating the smelter inside the port area, including “free zone status” conditions with no corporate tax or dividend withholding tax and access to existing port services such as power for construction, warehousing, and security. A 650 megawatt power station is adjacent to the port. The site also has access to rail transport, and a road network that links the port to Cairo and Suez City. MIL received an offer for a 15-year supply of power for the smelter from the Egyptian Electricity Holding Co., an entity of the Egyptian Government. MIL plans to begin a bankable feasibility study by the first quarter of 2005 (Magnesium International Ltd., 2004§). In January 2005, MIL announced that it chose German firm MAN Ferrostaal as the engineering, procurement, and construction (EPC) contractor for the magnesium plant. The EPC pricing work will take approximately 8 months, and MIL planned to complete financing for the project at the same time as the EPC work. Construction is scheduled to start in early 2006 and will take 2 years before commissioning (Magnesium International Ltd., 2005§).

Because of raw materials supply and power problems, some of the planned expansions in China were delayed. Shanxi Datong Zhongjin Magnesium Industry Co. delayed completion of its ingot expansion project from August until October. The expansion would increase the company’s capacity to 8,000 t/yr from 3,500 t/yr. In addition, Ningxia Zhongning Aluminium delayed its expansion from 2004 until 2005. The company had planned to increase its ingot production capacity to 50,000 t/yr from 15,000 t/yr (Platts Metals Week, 2004a). Minhe Magnesium Plant in Qinghai Province delayed its planned alloy capacity expansion from late 2004 until the first half of 2005. The expansion will increase the plant’s magnesium alloy production capacity to 20,000 t/yr from 600 t/yr (Platts Metals Week, 2004b).

Yuxing Magnesium Industry Co. Ltd. stopped magnesium metal production at its 10,000-t/yr plant in Shanxi Province on November 9 because of a company shakeup. Coal and electricity shortages had curtailed the plant’s production to about 2,000 metric tons in 2004. The company had planned a capacity increase to 50,000 t/yr by the end of 2005, but this was delayed indefinitely because the company’s Hong Kong-based partner was short of funds. Yuxing Magnesium has no date scheduled for reopening the plant (Platts Metals Week, 2004d).

Construction of the Asbest Magnesium Plant was expected to begin by the end of 2005 in Asbest, Sverdlovsk Oblast, Russia. Switzerland’s Minmet Financing Co. and the Sverdlovsk

regional government are the plant’s cofounders. The new plant, which will recover magnesium from serpentinite tailings from a nearby asbestos mine, will be constructed in three stages of 20,000 t/yr each. Plant construction was scheduled to be completed by 2008 (Interfax Mining and Metals Report, 2004).

IMCO Recycling Inc. announced that its German subsidiary VAW-IMCO Guss und Recycling GmbH will start operations in December at a new facility that will produce magnesium from scrap. About 90% of the output of the plant, which is being built next to IMCO’s Toeing facility, will be provided to the European auto industry. The magnesium plant will have a rated capacity of 15,000 t/yr and is expected to begin operating at a rate of 5,000 t/yr in the first quarter of 2005. It will produce cast magnesium ingots from the recycled scrap (IMCO Recycling Inc., 2004§)

Hydro Magnesium inaugurated the 7,500-t/yr expansion of its Bottrop, Germany, recycling plant in September. This expansion doubled the plant’s capacity to 15,000 t/yr.

References Cited

- Interfax Mining and Metals Report, 2004, Construction of magnesium venture to start at end of 2005: Interfax International Ltd., v. 13, no. 39, September 24-30, p. 15-16.
- McCann, Joe, 2005, Amacor charts a backup plan; fire bug sought: American Metal Market, v. 113, no. 3-4, January 27, p. 1, 4.
- Platts Metals Week, 2004a, Chinese Mg price direction pulled by opposing forces: Platts Metals Week, v. 75, no. 38, September 20, p. 7.
- Platts Metals Week, 2004b, New Minhe Magnesium alloy now in 2005: Platts Metals Week, v. 75, no. 45, November 8, p. 8.
- Platts Metals Week, 2004c, Pure magnesium contracts for 2005 booked at higher levels: Platts Metals Week, v. 75, no. 52, December 27, p. 10.
- Platts Metals Week, 2004d, Staff shakeup halts Yuxing Mg output: Platts Metals Week, v. 75, no. 46, November 22, p. 12.
- Platts Metals Week, 2005a, US magnesium casters find sourcing harder, usage at risk: Platts Metals Week, v. 76, no. 1, January 3, p. 2-3.
- Platts Metals Week, 2005b, US Magnesium seeks retroactive duties for Chinese alloy: Platts Metals Week, v. 76, no. 2, January 10, p. 9-10.
- U.S. Department of Commerce, International Trade Administration, 2004, Pure magnesium from Canada; notice of NAFTA binational panel’s final decision, amended final results of full sunset review and revocation of antidumping duty order: Federal Register, v. 69, no. 234, December 7, p. 70649-70651.

Internet References Cited

- Hydro Magnesium Inc., 2005 (January 28), Hydro Magnesium expands Canada plant, accessed February 4, 2005, at URL <http://www.hydrumagnesium.com>.
- IMCO Recycling Inc., 2004 (October 21), IMCO Recycling’s German subsidiary signs long-term supply agreement with DaimlerChrysler AG, accessed November 9, 2004, via <http://www.imcorecycling.com>.
- Magnesium International Ltd., 2004 (December 16), Magnesium smelter to be built in Egypt, accessed January 27, 2005, at URL <http://www.mgil.com.au/investor/documents/Announcement-SokhnaPort161204.pdf>.
- Magnesium International Ltd., 2005 (January 12), MAN Ferrostaal to engineer and construct magnesium smelter in Egypt, accessed January 28, 2005, at URL <http://www.mgil.com.au/investor/documents/EPCPressrelease12012005.pdf>.
- McFeely, Dan, 2005 (January 26) Anderson fire was arson (Indianapolis Star), accessed January 26, 2005, at URL <http://www.indystar.com/articles/4/212384-8334-009.html>.

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

(Metric tons)

	2003	2004				
		January- August	September	October	November	January- November
Imports:						
Metal	27,300	21,400	3,590	3,020	3,240	31,200
Waste and scrap	16,200	7,770	873	996	1,000	10,600
Alloys (magnesium content)	38,800	32,900	5,330	4,820	4,310	47,400
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	1,160	793	91	100	125	1,110
Total	83,400	62,900	9,880	8,940	8,680	90,400
Exports:						
Metal	8,770	1,250	158	112	180	1,700
Waste and scrap	5,040	3,330	461	440	265	4,490
Alloys (gross weight)	2,320	1,500	122	55	37	1,720
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	4,260	2,690	275	267	118	3,350
Total	20,400	8,760	1,020	874	600	11,300

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

Source: U.S. Census Bureau.