

Mineral Industry Surveys

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MAGNESIUM IN THE FOURTH QUARTER 1998

U.S. primary magnesium production in the fourth quarter of 1998 was 21,200 metric tons, 9% lower than production in the third quarter, according to the U.S. Geological Survey. Total 1998 U.S. primary magnesium production was 106,000 tons. Producers' shipments in the fourth quarter of 1998 were 23,900 tons, and inventories decreased to 13,500 tons.

Magnesium exports through November were about 11% lower

than those in the same period of 1997. Imports of magnesium were 28% higher than those in the first 11 months of 1997.

Quoted prices of primary magnesium rose very slightly in the fourth quarter, partially because of the impact of the news of Dow Chemical Co.'s closure. This was the first increase in prices since the end of 1997. Prices are shown in the following table.

	Units	Beginning of quarter	End of quarter
Metals Week U.S. spot Western	Dollars per pound	\$1.52-\$1.62	\$1.52-\$1.62
Metals Week U.S. spot dealer import	do.	1.27-1.33	1.30-1.35
Metals Week European free market	Dollars per metric ton	2,200-2,450	2,300-2,450
Metal Bulletin free market	do.	1,900-2,000	1,900-2,150

Following the closure of its plant in November, Dow Chemical Co. announced plans to license various parts of its magnesium technology. Technology licenses are available for cell feed, electrolytic cells, metal casting, and products and applications. Dow is in the processing of liquidating its remaining inventory (Platt's Metals Week, 1999b).

On January 19, 1999, an explosion at Norsk Hydro A/S's Becancour, Canada, magnesium plant injured four workers, but the plant lost only 1 day's worth of metal production. The explosion, however, was expected to idle the company's direct chill caster until March, while an investigation is being conducted into the cause of the explosion. The caster is the only one in the world that can direct-chill cast the T-bars that are the preferred product used for alloying by the aluminum industry (Platt's Metals Week, 1999c).

In China, magnesium production for 1999 is expected to be between 80,000 and 90,000 tons, with only 30% of the country's magnesium plants running. Many of the country's smaller magnesium plants ceased production in 1998 when the price was low. Prices are not expected to increase significantly, so the small plants are expected to remain closed (Platt's Metals Week, 1999a).

A consortium of three aluminum firms in Germany has set up a new company, MR Magnesium-Recycling GmbH, to recover magnesium from scrap and residues. The decision was made to

develop proprietary technology and construct a new plant because magnesium scrap receipts at all the firms had increased significantly, primarily from European automobile manufacturers. A decision on plant construction is expected by mid-1999 (Metal Bulletin, 1999).

General Motors Corp. (GM) signed a contract with Missouri-based Diemakers Inc. to produce the die-cast magnesium steering column support brackets for four of its midsize cars. About 1,800 tons of magnesium alloy AM60 will be required annually for this application. Diemakers already was selected to produce magnesium instrument panel support beams for GM's redesigned 2000 Cadillac DeVille models (Wrigley, 1999).

References Cited

- Metal Bulletin, 1999, German firms plan secondary magnesium plant: Metal Bulletin, no. 8349, February 8, p. 10.
- Platt's Metals Week, 1999a, China Mg output 80,000-90,000 mt: Platt's Metals Week, v. 70, no. 4, January 5, p. 10.
- 1999b, Dow licensing technology: Platt's Metals Week, v. 70, no. 4, January 5, p. 10.
- 1999c, Hydro Mg unit down through March: Platt's Metals Week, v. 70, no. 5, February 1, p. 3.
- Wrigley, Al, 1999, Diemakers get GM brackets contract: American Metal Market, v. 107, no. 1, January 4, p. 16.

TABLE 1
U.S. IMPORTS FOR CONSUMPTION AND EXPORTS OF MAGNESIUM 1/

(Metric tons)

	1997	1998				
		Jan.-Aug.	September	October	November	Jan.-Nov.
Imports:						
Metal	19,700	17,900	2,350	1,640	1,810	23,700
Waste and scrap	3,990	4,340	452	286	416	5,500
Alloys (magnesium content)	41,000	28,200	5,270	6,040	4,890	44,400
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	509	527	60	20	35	642
Total	65,100	50,900	8,130	7,990	7,150	74,200
Exports:						
Metal	17,100	9,450	948	353	499	11,200
Waste and scrap	11,200	7,710	1,340	1,460	1,320	11,800
Alloys (gross weight)	9,180	7,680	729	317	392	9,120
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	2,960	900	196	141	136	1,370
Total	40,500	25,700	3,210	2,270	2,350	33,600

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

