Mineral Industry Surveys

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MAGNESIUM METAL IN THE FIRST QUARTER 2022

All forms of magnesium metal imports for consumption in the first quarter of 2022 were 16,300 metric tons (t), 40% more than the imports in the fourth quarter of 2021, 13% more than those in the first quarter of 2021, but 15% less than those in the first quarter of 2020 (table 1).

Compared with the imports in the fourth quarter of 2021, imports of metal, alloys, semifabricated products, and scrap increased by 71%, 30%, 31%, and 31%, respectively. In the first quarter of 2022, magnesium metal accounted for 29% of the imports, with Russia (46%), Turkey (23%), and Israel (18%) being the leading sources (fig. 1). Scrap accounted for 38% of the imports in the first quarter of 2022, with Canada (37%), China (17%), Mexico (15%), and India (13%), as the leading sources. Alloys accounted for 28% of the imports, with Taiwan (20%), Hungary (19%) Czechia (16%), Canada (15%), and Israel (12%) as the leading sources (table 1).

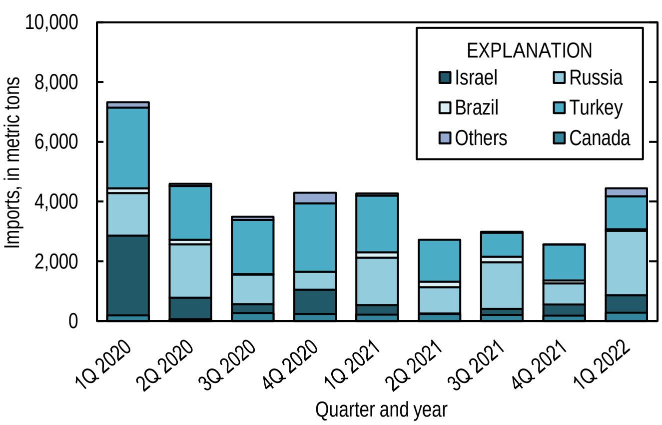

Figure 1. Quarterly imports of magnesium metal from the first quarter of 2020 through the first quarter of 2022. Source: U.S. Census Bureau, adjusted by USGS.

Total magnesium metal exports in the first quarter of 2022 were 24% less than exports in the fourth quarter of 2021, 5% less than those in the first quarter of 2021, and 55% less than those in the fourth quarter of 2020. Exports of scrap and semifabricated products increased by 12% and 167%, respectively, compared with exports in the fourth quarter of 2021. These increases were offset by decreased exports of metal and alloys, which declined by 60% and 56%, respectively (table 1).

Canada (46%), the Netherlands (15%), Israel (10%), and the Republic of Korea (9%) were the leading destinations for magnesium exports in the first quarter of 2022. Canada received 95% of metal, 85% of alloys, 18% of semifabricated product, and 9% of scrap exports. Israel and the Republic of Korea received 28% and 24%, respectively, of semifabricated product exports. The Netherlands and Germany received 71% and 11%, respectively, of scrap exports.

The U.S. spot dealer import and the U.S. spot Western price average prices for magnesium each increased by 20% in the first quarter of 2022. At the end of March 2022, both the U.S. spot dealer import and the U.S. spot Western average prices were $7.88 per pound compared with $6.58 per pound at the end of December 2021. In Europe, the average price was 23% less at the end of the quarter compared with that of the beginning of the quarter, going to $7,150 per metric ton from $9,250 per metric ton (table 2).

Update

The increases of the U.S. spot dealer and U.S. spot Western import prices were partly attributed to the continued shutdown of an undisclosed amount of capacity at U.S. Magnesium LLC's smelter in Rowley, UT. On September 29, 2021, US Magnesium declared force majeure and notified customers with contracts that deliveries would be adjusted, citing an equipment failure at its 63,500-metric-ton-per-year smelter. (See Magnesium in the Third Quarter 2021.) In early January 2022, industry sources reported that US Magnesium had received equipment necessary to repair the smelter but a completion schedule for the repairs was not available. (See Magnesium in the Fourth Quarter 2021.) (McBeth, 2022a).

Another factor contributing to the price increase was uncertainty about deliveries from Russia owing to recent events in Ukraine. On April 7, Congress voted to suspend normal trade relations with Russia citing military action in Ukraine, and the President of the United States signed the bill on April 11. As a result, tariffs on pure magnesium imported from Russia increased to 100% ad valorem from 8% ad valorem. For magnesium alloys imported from Russia, the tariff increased to 60.5% ad valorem from 6.5% ad valorem (Lazzaro, 2022a, b; McBeth, 2022b).

Magnesium prices in China and Europe decreased during the quarter as many producers in China increased production after shutdowns in September 2021 to comply with emission targets. Prices in China and Europe during the fourth quarter of 2021 hit record highs after production decreases in China. (See Magnesium in the Fourth Quarter 2021.) While production increased in the first quarter of the year, magnesium consumption in some parts of China decreased in response to lockdowns imposed after outbreaks of COVID-19 were reported in the first three months of the year (S&P Global Platts Metals Daily, 2021; 2022).

References Cited

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

(Metric tons)

		2022			
	2021	January	February	March	January–March
Imports for consumption:					
Metal	13,400	1,440	1,390	1,880	4,720
Waste and scrap	19,000	1,660	2,090	2,410	6,160
Alloys (magnesium content)	14,100	1,180	2,020	1,370	4,580
Sheet, tubing, ribbons, wire, powder, and other (magnesium content)	3,390	182	298	322	801
Total	49,900	4,470	5,810	5,990	16,300
Exports:					
Metal	1,690	138	12	3	153
Waste and scrap	1,510	18	204	124	346
Alloys (gross weight)	2,430	364	98	73	536
Sheet, tubing, ribbons, wire, powder, and other (gross weight)	1,950	219	178	195	592
Total	7,590	739	492	396	1,630

[1]Data 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
MAGNESIUM PRICES, FIRST QUARTER 2022

		Beginning of quarter	End of quarter
U.S. spot dealer import	dollars per pound	6.25–6.90	7.25–8.50
U.S. spot Western	do.	6.25–6.90	7.25–8.50
European free market	dollar per metric ton	9,000–9,500	7,000–7,300

do. Ditto.

Source: S&P Global Platts Metals Week.