



# Dead Sea Magnesium Ltd.

## Line of Business

Automotive

## Established

1996

## Leading Executive

Mr. Arie Sudak

Unique by its location, commitment, partnership and expertise Dead Sea Magnesium [DSM] Ltd is a proud producer of the highest quality magnesium world wide. With help from the magical and boundless resources of the Dead Sea, DSM's vision of being a trustworthy producer as well as an international Mg research center is now a successful reality.

DSM is committed to creating and maintaining a clean and safe environment while transforming a raw material into quality products that stand the test of time. Our high standards ensure durable, superior products supplied under reliable conditions, worldwide.



## DSM Products

DSM is an R&D oriented company, which offers its customers comprehensive solutions for Mg technologies. DSM products can be divided to 2 categories:

- Pure Mg for Aluminum alloys and the production of Ti & Zr.
- Mg alloys for different structural applications.

DSM had developed and patented Mg alloys for high pressure die casting technologies as well as gravity casting.

DSM offers variety of products in several ingot dimensions and T-bars in order to provide its customers with the highest flexibility and increase its operation efficiency.

## DSM R&D

DSM R&D division is where our customers receive technical support and where research is conducted to develop new alloys, new products and optimized casting and forming techniques. DSM R&D is consistently seeking innovative prod-

ucts and processes while discovering new markets for magnesium use and applications.

Most major car manufacturers and their suppliers work with DSM R&D to develop lightweight products that are found in today's vehicles and the passenger cars of tomorrow.

DSM has launched into the market 4 newly developed Mg alloys:

- **MRI 153M & MRI 230D** – HPDC (High Pressure Die Casting) Mg alloys.
- **MRI 201S & MRI 202S** – gravity and PMC Mg alloys.

DSM's creep resistant high-pressure die casting alloys MRI 153M and MRI 230D exhibit high strength, outstanding creep and corrosion resistance combined with excellent castability. These alloys provide weight and cost savings over A380 aluminum alloy and can be considered as its direct replacement for different automotive and non-automotive applications.

- **MRI 153M** is a beryllium free, low cost creep resistant alloy with the capability of long-term operation at temperatures up to 150°C under high loads. The creep resistance of the alloy is substantially superior to that of commercial alloys, at 130-150°C under stresses of 50-85 MPa. This makes the alloy a superior alternative for applications such as gearbox housing, valve covers etc.
- **MRI 230D** is a die cast alloy that was developed to address the powertrain applications of the automotive industry such as engine blocks operating at temperatures up to 190°C. The alloy has excellent creep resistance combine with good castability, high strength and superior corrosion behavior.
- **MRI 201S** and **MRI 202S** are sand casting alloys designed for highly stressed components operating at temperature up to 300°C. This new alloys in the T-6 conditions exhibit excellent mechanical properties and creep resistance combine with outstanding, pressure tightness weld ability, dimension stability and corrosion resistance. The alloys are designed for high temperature application in automotive and aerospace industries.

DSM is providing comprehensive technical support starting with the application design, processing technologies and recycling procedures aiming to provide state of the art magnesium solutions.



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