



SoluMag® ND80 Magnesium Alloy

Luxfer MEL Technologies SoluMag® alloy

Luxfer MEL Technologies is the world leader in the development and supply of highly functional magnesium alloys. SoluMag ND80 is a lightweight, high strength non-dissolving, corrosion resistant magnesium alloy that provides an excellent balance of strength and corrosion performance while being cost effective. Component designs in SoluMag ND80 can be 20% to 30% lighter than a corresponding aluminum design. The properties of SoluMag ND80 are well suited for its use as feedstock material from which to machine downhole components. This lightweight alloy is available as extruded rods, bars, and tubes to produce components in demanding downhole environments.

Product forms

- Seamless tubes and round bars
- Solid profiles
- Balls/Spheres

Mechanical properties

Extruded bar – Imperial units			
Bar OD (in)	0.2% proof stress ksi	Tensile strength ksi	Elongation %
>0.25	34.8	51.0	4
0.25-2.36	33.4	47.9	3
2.36-5.12	29.7	45.0	1

Component sizes

- Extruded round rod from 1/2 inch to 5 inches diameter
- Other tube and bar sizes available upon request

Typical applications

- Machined components for downhole completion tools in oil and gas applications

Specifications

- AMS 4485 – Extrusion
- ASTM B107 and B107M – Extrusion
- Corrosion rate according to agreed testing protocol
- Corrosion rate less than 30 MPY

Extruded bar – Metric units			
Bar OD (mm)	0.2% proof stress MPa	Tensile strength MPa	Elongation %
>6.3	205	325	4
6.3-60	230	330	3
60-130	205	310	1

Product details [LINK](#)

Discover more at

www.luxfermeltechnologies.com

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SoluMag®, UK Patent No 2529062B. July 2015.

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