



SoluMag® High Strength Magnesium Alloy

Luxfer MEL Technologies SoluMag® HS™ alloy

Luxfer MEL Technologies is the world leader in the development and supply of highly functional magnesium alloys. SoluMag® HS is a new ultra-high strength magnesium alloy that has a high corrosion rate in aqueous chloride environments. This light weight alloy is available as balls, extruded rods, bars, tubes and profiles to produce components that have high strength and ductility in demanding environments as well as a controlled corrosion rate that will effectively dissolve the component in a known time.

Product forms

- Balls/spheres
- Machined components
- Round rod
- Square/rectangular sections
- Solid profiles
- Tube

Typical applications

- Balls for hydraulic fracturing systems
- Machined components for downhole completion tools in oil and gas
- Time activated underwater devices
- Flooding plugs for IP protection

Specifications

- ASTM B107 for extruded products, dimensions only
- Corrosion rate according to agreed testing protocol
- Manufactured to aerospace quality and metal cleanliness standards

Component sizes

- Machined balls from 1/2 inch to 5 inches diameter
- Extruded round rod from 1/2 inch to 5 inches diameter
- Standard bar length 3 ft / 1 m
- Other sizes, lengths and machined parts upon request

Mechanical properties (typical)

-F As Extruded	Diameter	
	≤4"	>4"
Tensile yield strength (ksi/MPa)	41/285	40/275
Ultimate tensile strength (ksi/MPa)	55/380	54/370
Elongation (%)	6	5

T5 Heat Treatment	Diameter	
	≤4"	>4"
Tensile yield strength (ksi/MPa)	49/340	48/330
Ultimate tensile strength (ksi/MPa)	65/450	63/435
Elongation (%)	4	3

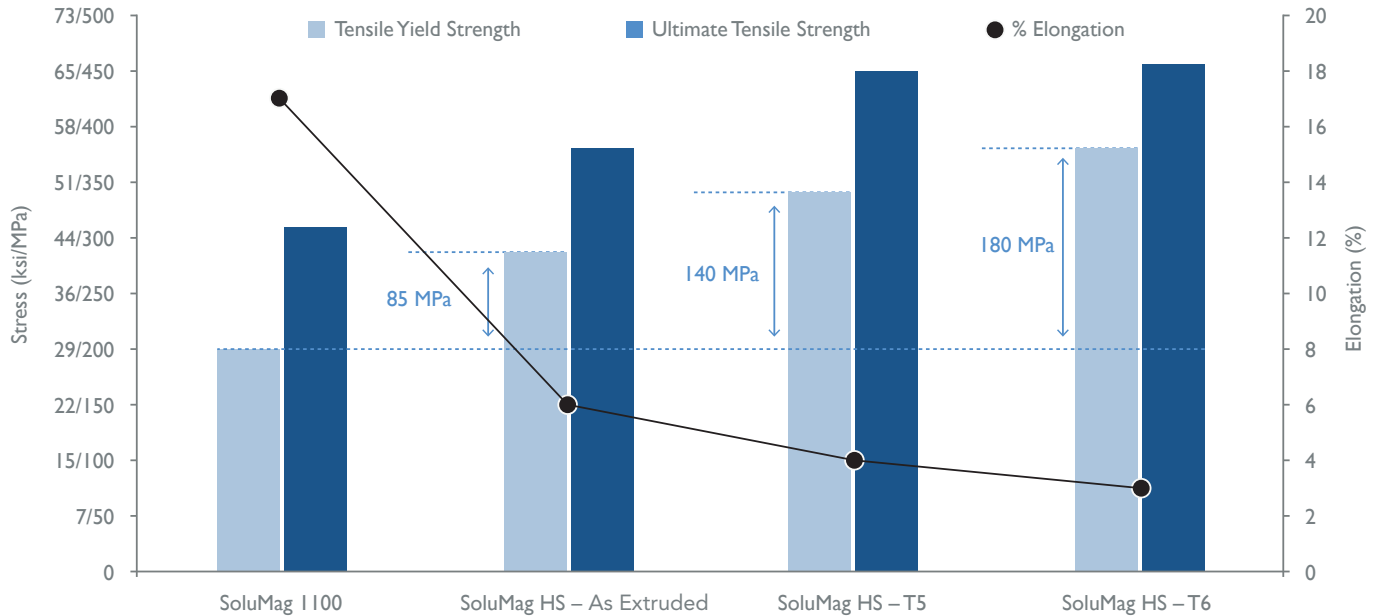
T6 Heat Treatment	Diameter	
	≤4"	>4"
Tensile yield strength (ksi/MPa)	55/380	53/365
Ultimate tensile strength (ksi/MPa)	66/455	64/440
Elongation (%)	3	2

Corrosion properties (3% KCl)

- 200 ° F: 300 - 500 mg/cm²/day (MCD)

SoluMag® High Strength Magnesium Alloy

SoluMag® Property Comparison, <4" Diameter



Product details [LINK](#)

Further information

For more detailed information, please contact:

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† The information contained within is meant as a guideline only

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