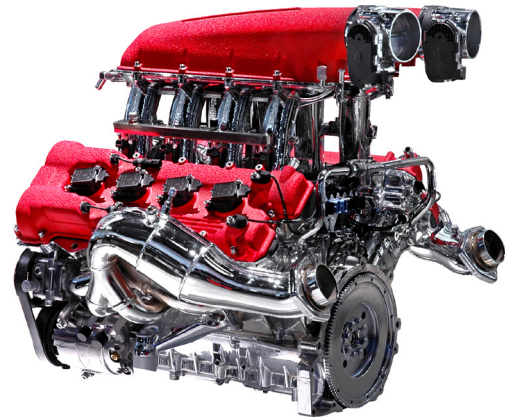


High strength magnesium casting alloys for motorsport

Elektron[®] 43 offers attractive mechanical properties at both ambient and elevated temperatures.

Elektron[®] 43 magnesium alloy can be used successfully in temperatures up to 300°C. While offering excellent energy absorption characteristics, the material provides good corrosion resistance and is an excellent choice for motorsport applications where weight reduction is required while still maintaining the highest levels of performance. The alloy can be welded using the tungsten arc inert gas process.



Chemical Composition (weight %)				
	Mg	Y	Zr	Rare Earths
min	Rem	3.70		2.40
max	Rem	4.30	0.40	4.40

Physical Properties	Metric	Imperial
Density	1.8 g/cm ³	0.06516/in ³
Melting Point	540 - 640°C	1004 - 1184°F

Mechanical Properties	Metric	Imperial
Tensile strength	250 MPa	36259 psi
Poisson's ratio	0.27	0.27
Elongation	2%	2%
Hardness, Vickers	85-105	85-105

Characteristics

- High strength magnesium casting alloy
- Good corrosion resistance
- For use in temperatures up to 300°C

Applications

- Chassis components
- Structural engine components
- Weight reduction design

About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials to the global motorsport sector. We are supply partners in a range of specialist motorsport markets including Formula 1, Formula E, NASCAR, MOTO GP, WEC & WRC.