



Material data sheet aluminium AlSi10Mg – SCHUNK eGRIP

Information:

- Layer-thickness: 0,05 mm
- Tolerances: +- 0,2 mm
- Surface roughness (according to construction): Rz 0,02mm – 0,04 mm
- Component density according to manufacturing process : >99,9%

Mechanical properties	Value	Unit
Tensile strength (Rm)		
→ <i>xy-direction (horizontal)</i>	360	[N/mm ²]
→ <i>z-direction (vertical)</i>	365	[N/mm ²]
Yield strength (Rp0,2%)		
→ <i>xy-direction (horizontal)</i>	223	[N/mm ²]
→ <i>z-direction (vertical)</i>	228	[N/mm ²]
Elongation at break (A5)	5	[%]
E-module (E)	70	[kN/mm ²]
Notched bar impact work (Av)	6	[J]

Chemical composition	Component	Guideline [%]
	Si	9,0 –11,0
	Mg	0,25 –0,5
	Fe	0,4 –0,9
	Cu	0,08
	Mn	0,55
	Ni	0,15
	Zn	0,15
	Pb	0,15
	Ti	0,15
	Sn	0,05
	Al	Rest

Physical properties	Size	Unit
Density	2,68	[g/cm ³]
Electrical conductivity	16 –21	[10 ⁶ S/m]
Thermal conductivity (at 20 °C)	130–150	[W/mK]
Middle thermal expansion coefficient	23	[10 ⁻⁶ /K]