

Aluminium alloy DE56 - S AL 5754 - AlMg3

Reference analysis in wt. %			
Si	≤ 0,40	Zn	≤ 0,20
Fe	≤ 0,40	Ti	≤ 0,15
Cu	≤ 0,10	Be	≤ 0,0003
Mn	≤ 0,50	others each	≤ 0,05
Cr	≤ 0,30	others together	max. 0,15
Mn + Cr	0,10 - 0,6	Al	Rest
Mg	2,6 - 3,6		
Standard designation			
DIN EN ISO 18273		S AL 5754 (AlMg3)	
Base materials			
Suitable for joint welding of aluminium alloys from 5000 and 6000 series.			
Additional information			
Anodizing quality allows excellent anodizing properties. Very good resistance to corrosion, especially in seawater and marine and industrial atmosphere.			
Physical properties (guideline values, partly calculated)			
Modulus of elasticity [MPa]		70500	
Heat conductivity at 20°C [W/(mK)]		140 - 160	
Coefficient of expansion (20°-100°C) [10 ⁻⁶ /K]		23,9*10 ⁻⁶	
Melting range [°C]		610 - 640	
Electrical conductivity [m/Ω*mm ²]		20 - 23	
Density [g/cm ³]		2,66	
Specific heat capacity [J/(kg*K)]		900	
Shear modulus [MPa]		26500	
Mechanical properties (guideline values, without dilution)			
Yield strength R _{p0,2} [MPa]		≥ 80	
Elongation A ₅ [%]		≥ 20	
Tensile strength R _m [MPa]		≥ 190	
Test temperature [°C]		20	
Welding positions			
PA, PB, PC, PF			
Shielding gas			
I1, I2, I3 (argon, helium or argon/helium-mixture)			
Polarity			
MIG =+, TIG ~			
Approvals			
TÜV, DB			
Dimensions Ø			
MIG - wires [mm]		0,80 - 2,40	
TIG - rods [mm]		1,6 - 6,0	
Forms of supply - spools and rods			
Standard spools: S 300 / B 300 / BS 300		max. 6,0 kg / max. 7,0 kg / max. 7,0 kg	
Special spools: B 435 / B 400		max. 14 kg / max. 40 kg	
Small spools: S 100 / S 200		0,5 kg / 2,0 kg	
Drums: Ø 500 x 800 mm / Ø 580 x 890 mm		max. 80 kg / max. 140 kg	
TIG - rods: 1000 mm		2,5 kg / 5 kg / 10 kg	