

Aluminium alloy DE57 - S AL 5249 - AlMg2Mn0,8Zr

Reference analysis in wt. %			
Si	≤ 0,25	Ti	≤ 0,15
Fe	≤ 0,40	Zr	0,10 - 0,20
Cu	≤ 0,05	Be	≤ 0,0003
Mn	0,50 - 1,1	others each	≤ 0,05
Mg	1,6 - 2,5	others together	max. 0,15
Cr	≤ 0,30	Al	Rest
Zn	≤ 0,20		

Standard designation

DIN EN ISO 18273 S AL 5249 (AlMg2Mn0,8Zr)

Base materials

Suitable for joint welding of aluminium alloys from 5000 and 6000 series.

Additional information

Alloys of 5000 group have the highest level of stability in group of the non precipitation hardening alloys.

Physical properties (guideline values, partly calculated)

Modulus of elasticity [MPa]	69000
Heat conductivity at 20°C [W/(m*K)]	
Coefficient of expansion (20°-100°C) [m/K]	
Melting range [°C]	615 - 650
Electrical conductivity [m/Ω*mm²]	
Density [g/cm³]	2,71

Mechanical properties (guideline values, without dilution)

Yield strength $R_{p0,2}$ [MPa]	≥ 80
Tensile strength R_m [MPa]	≥ 190
Elongation A_5 [%]	≥ 20
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