

Aluminium alloy DE64 - S AL 5087 - AlMg4,5MnZr (A)

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	0,7 - 1,1	others each	≤ 0,05
Mg	4,5 - 5,2	others together	max. 0,15
Cr	0,05 - 0,25	Al	Rest
Zn	≤ 0,25		

Standard designation

DIN EN ISO 18273

S AL 5087 (AlMg4,5MnZr (A))

Base materials

Suitable for joint welding of aluminium alloys from 2000, 5000, 6000 and 7000 series.

Additional information

Weldseam has to be bright. Components should be heated up to 150°C to prevent welding defects and to avoid tension.

Physical properties (guideline values, partly calculated)

Modulus of elasticity [MPa]	69000
Heat conductivity at 20°C [W/(mK)]	110 - 120
Coefficient of expansion (20°-100°C) [10 ⁻⁶ /K]	23,7*10 ⁻⁶
Melting range [°C]	574 - 638
Electrical conductivity [m/Ω*mm ²]	16 - 19
Density [g/cm ³]	2,66

Mechanical properties (guideline values, without dilution)

Yield strength R _{p0,2} [MPa]	≥ 140
Tensile strength R _m [MPa]	≥ 285
Elongation A ₅ [%]	≥ 18
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

LR, TÜV, DB, BWB

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