

Aluminium alloy DE71 - S AL 2319 - AlCu6MnZrTi

Reference analysis in wt. %			
Si	≤ 0,20	Ti	0,10 - 0,20
Fe	≤ 0,30	Zr	0,10 - 0,25
Cu	5,8 - 6,8	Be	≤ 0,0003
Mn	0,20 - 0,40	others each	≤ 0,05
Mg	≤ 0,0,2	others together	max. 0,15
Zn	≤ 0,10	Al	Rest
V	0,05 - 0,15		

Standard designation

DIN EN ISO 18273 S Al 2319 (AlCu6MnZrTi)

Base materials

Suitable for joint welding of aluminium alloys from 2000 series.

Additional information

Main application in aeronautics. High solidity.

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]	543 - 643
Electrical conductivity [m/Ω*mm²]	
Density [g/cm³]	2,84

Mechanical properties (guideline values, without dilution)

Yield strength $R_{p0,2}$ [MPa]	≥ 75
Tensile strength R_m [MPa]	≥ 170
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

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