

Classifications

EN ISO 18273	AWS A5.1 / SFA-5.1
S Al 3103 (AlMn1)	ER3103

Characteristics and typical fields of application

Solid rod for GTAW with 1.5% Mn for joining of aluminium-manganese alloys and aluminium-magnesium alloys with a Mg content of approx. 3% according to EN ISO 18273.

Base materials

AlMn0.6 3.0506
AlMn 1 3.0515
AlMn 1 Mg0.5 3.0525
AlMn 1 Mg 13.0526
AlMg3 3.3535

Typical analysis

	Si	Mn	Cr	Fe	Al	Mg
wt.-%	<0.5	0.9 – 1.5	<0.1	<0.7	Rest	<0.3

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)
	MPa	MPa	%
u	≥35	≥ 90	≥24
u untreated, as welded			

Operating data

	Polarity	AC	Dimension mm
	Shielding gas (EN ISO 14175)	I1	1.6 × 1000
		I2	2.0 × 1000
			2.4 × 1000

For wall thickness above 6 mm preheating up to 100 – 250°C is necessary to get a good fusion to the base material. Super-elevated seams indicate too little preheating.

Approvals

-