

Classifications

EN ISO 18273-A	AWS A5.10
S Al 5087 (AlMg4.5MnZr)	ER5087

Characteristics and typical fields of application

Zirconium micro alloyed welding rods and bare wire electrodes. The weld metal is not susceptible to hot cracking. Particularly advantageous for complicated weldments involving damp conditions. Thorough cleaning of the workpiece bevels is necessary. Thicker plate materials require preheating to 150 °C (302 °F)

Base materials

AlMg 4.5 Mn	3.3547	EN AW-5083 [AlMg 4.5 Mn 0.7]
AlMg 4 Mn	3.3545	EN AW-5086 [AlMg 4]
AlMg 5	3.3555	EN AW-5019 [AlMg 5]
AlMgSi 0.5	3.3206	EN AW-6060 [AlMgSi]
AlMgSi 0.7	3.3210	EN AW-6005A [AlSiMg(A)]
AlMgSi 1	3.2315	EN AW-6082 [AlSi 1 MgMn]
AlMg 1 SiCu	3.3211	EN AW-6061 [AlMg 1 SiCu]
AlZn 4.5 Mg 1	3.4335	EN AW-7020 [AlZn 4.5 Mg 1]
G-AlMg 5	3.3561	EN AC-51300
G-AlMg 5 Si	3.3261	EN AC-51400

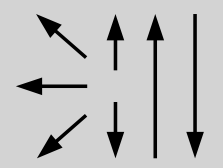
Typical analysis of solid wire (wt.-%)

	Al	Mn	Cr	Mg	Zr	Ti	Fe	Si	Zn
wt.-%	bal.	0.7 – 1.1	0.05 – 0.25	4.5 – 5.2	0.1 – 0.2	< 0.15	< 0.4	< 0.25	< 0.25

Mechanical properties of all-weld metal

Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)
MPa	MPa	%
125	275	17

Operating data

	Polarity: DC (+)	Shielding gas: (EN ISO 14175) I1, I3	ø (mm) 1.0
			1.2
			1.6
Base material should be cleaned near the seam. Pre-heating 150 °C for plates > 15 mm			

Approvals

DB (61.132.04), GL, WIWEB