



ER 5183

Aluminium WIRE/GMAW



Standards

EN/ISO-Standard - 18273

EN/ISO-Classification - S Al 5183 (AlMg4.5Mn0.7(A))

AWS-Standard - A5.10

AWS-Classification - ER 5183

Features and Applications

- Aluminium filler metal designed to meet the tensile strength requirements of high magnesium alloys.
- Excellent weldability and good mechanical strength, combined with good corrosion resistance in seawater conditions.
- Ideal for applications demanding high fracture toughness and impact.
- Not recommended for elevated temperature service applications.
- Thicker sections should be preheated to (150°C) prior to welding.
- Typically used on applications in shipyards, automotive, railway, tanks and marine component fabrication etc.
- Test Certificates can be found online @wilkinsonstar247.com**



Approvals

CE, UKCA

Typical Base Materials

AlMg4.5Mn, AlMg5, AlMg2Mn0.8, AlZnMg1, AlZnMgCu0.5, AlMgSi0.5, AlMgSi1, G-AlMg10, G-AlMg5, G-AlMg3Si, G-AlMg5Si, 3.3545, 3.3547, 3.3535, 3.3555, 3.3206, 3.3210, 3.2315, 3.3211, 3.4335, EN AW 5086, EN AW 5083, EN AW 5019, EN AW 5019, EN AW 6060, EN AW 6005A, EN AW 6082, EN AW 6061, EN AW 7020, EN AC 51300, EN AC 51400*

* Illustrative, not exhaustive list

Welding Positions

EN ISO 6947 - PA, PB, PC, PD, PE, PF, PG

Shielding Gases

EN ISO 14175 - MIG: I1, I3

Polarity

DC+

Chemical Composition % (Typical)

Si %	Fe %	Cu %	Mn %	Mg %	Cr %	Zn %	Ti %	Be%	Al %
0.0521	0.0800	0.0015	0.6280	4.8521	0.0979	0.0037	0.0816	<0.0001	Rem.

Packaging Data

Part No.	Diameter Ø (mm)	Package Weight (Kg)	Package Type	Pallet Quantity
6011100275	1.00	7	D300 PLW	72
6011100276	1.20	7	D300 PLW	72

Other diameters available on request

Mechanical Properties

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation (%)	Impact Strength (J)
≥275	≥125	≥17	≥16

Mechanical properties are approximate and may vary based on the heat, shielding gas, welding parameters and other factors.