WILKINSON STAR

WELD STAR®

ER 5183

Aluminium WIRE/GTAW

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 wire designed to meet the tensile strength requirements of high magnesium alloys.
- Excellent weldabillity 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 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

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.

Welding Positions

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

Shielding Gases

EN ISO 14175 - TIG: I1, I3

Polarity

AC

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 Length (mm)	Package Weight (Kg)	Package Type
6011100476	1.60	1000	2.5	Cardboard Tube
6011100477	2.40	1000	2.5	Cardboard Tube
6011100478	3.20	1000	2.5	Cardboard Tube

Other diameters available on request