

Solid Wire Rod for TIG Welding

BA-TIG AlMg4,5Mn

Classification: ISO 18273: **S Al 5183 (AlMg4.5Mn0.7)**
SFA-5.10: **ER5183**

Main Application:

BA-TIG AlMg4,5Mn is a solid wire rod for GTAW. Suitable for welding Al-alloys with high tensile strength requirements and high resistance to seawater corrosion. Mainly applications for ship construction, offshore, cryogenic plants, and in the automotive industry.

Typical analysis and chemical composition acc. to ISO 18273 and AWS A5.10: (Weight Percent)

Wire rod	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Typical analysis BA-TIG AlMg4,5Mn	0.1	0.1	0.05	0.7	4.8	0.10	0.10	0.10	Rem
S Al 5183 acc. to ISO 18273	0.4	0.4	0.1	0.5-1.0	4.3-5.2	0.05-0.25	0.25	0.15	Rem
ER5183 acc. to AWS A5.10	0.4	0.4	0.1	0.5-1.0	4.3-5.2	0.05-0.25	0.25	0.15	Rem

All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment: As Welded
Yield Strength Re, N/mm² (ksi): 125 (18)
Tensile Strength Rm, N/mm² (ksi): > 275 (40)
Elongation A5 [%]: > 17
Impact Energy ISO-V, J (ft lbs):
Current/polarity: AC
Shielding Gas: ISO 14175: I1, I2, I3

Base Materials:

Al Mg Si 1, Al Mg 4,5 Mn, G-Al Mg 3 Si, Al Mg 5, G-Al Mg 3, G-Al Mg 5 Si, G-Al Mg 5, G-Al Mg 10, G-Al Mg 3 Cu, Al Zn 4,5 Mg 1

Package Forms:

2,5 kg carton boxes as standard package form for GTAW wire rods.

Diameter:

1,6 – 4,0 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.10.

Wire Rod Surface:

Smooth finish free from surface defects and foreign matter.