

SMT-5183H

Aluminum Alloy Filler Metal
for Welding of 5083,5086,5654 etc. AL-Alloy Steel



❖ Specification

AWS A5.10

EN ISO 18273

ER 5183

S Al 5183 (AlMg4.5Mn0.7(A))

❖ Description & Applications

Aluminum alloy filler metal designed to meet the tensile strength requirements of high magnesium alloys. Commonly used for welding applications demanding high strengths and high fracture toughness to impact as well as to exposure to corrosive elements. Not recommended for elevated temperature service applications. Non-heat treatable. This grade may be used for:

- railroad cars and transportation equipment;
- unfired pressure vessels;
- marine components fabrication and repair;
- drilling rigs;
- cryogenics storage tanks.

❖ Weldable base materials

Aluminum 5083, 5086, 5654 and other similar high magnesium alloys.

❖ All-Weld metal mech. Properties

Tensile Strength (Rm) : $\geq 275 \text{ N/mm}^2$

Elongation : $\geq 17\%$

Yield Strength (Rp0.2) : $\geq 125 \text{ N/mm}^2$

Charpy-V Impact (R.T.) : $\geq 16 \text{ J}$

❖ Chemical Composition

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Be
Max	Max	Max	0.50	4.30	0.05	Max	Max	Max
0.40	0.40	0.10	1.00	5.20	0.25	0.25	0.15	0.0003

❖ Standard Packaging data

Welding Process	Product Type	Ø mm(inches)	Packing Type	Weight Kg (lbs)	Length mm (inches)
GMAW	filler wire	0.80 - 1.20 (0.030 - 0.047)	Spools BS300 / D300	7 (33)	N/A
GTAW	filler rod	1.60 - 4.00 (1/16 - 5/32)	Cardboard Boxes / tubes	5 (11)	1000 (39.4)

❖ Type approvals

ABS (GMAW)

BV (GMAW)

CWB (GMAW/GTAW)

DB (GMAW)

DNV GL (GMAW)

KR (GMAW)

LR (GMAW)

RINA (GMAW)

TUV Nord (GMAW)

CE (GMAW)