

A5183

Comparable specifications

ASME SFA- 5.10: ER5183
EN ISO 18273: S Al 5183 (AlMg4.5Mn0.7(A))
Werkstoff Nr.: 3.3548

Description and applications*

* Illustrative, not-exhaustive list

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 equipments;
- unfired pressure vessels;
- marine components fabrication and repair;
- drilling rigs;
- cryogenics storage tanks.

Weldable base materials*

* Illustrative, not-exhaustive list

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

All-weld metal mech. properties*

* For reference only values

Tensile strength (Rm): ≥ 275 N/mm² **Yield Strength (Rp_{0.2}):** ≥ 125 N/mm²
Elongation: $\geq 17\%$ **Charpy-V Impact (R.T.):** ≥ 16 J

Chemical composition*

* For reference only values

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)

* Other sizes and packing types are available upon request

** GMAW: gas metal arc welding; GTAW: gas tungsten arc welding

Marking

Each filler rod for GTAW welding is durably marked with an identification traceable to the unique product type. Welding filler materials wound on spools or in coils are durably marked on the coil or spool with an identification traceable to the unique product type.

The outside of each unit package is suitably labelled with at minimum the following data: grade, diameter, heat, lot no., classifications.

☞ marking type-testing performed and available.

Customized labels are available upon request.

Type approvals

ABS (GMAW) **BV** (GMAW) **CWB** (GMAW/GTAW) **DB** (GMAW)
DNV GL (GMAW) **KR** (GMAW) **LR** (GMAW) **RINA** (GMAW)
TUV Nord (GMAW)

Lot classification

All our productions fulfil the **Class S3** requirements acc. to EN ISO 14344.