

5183

**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):**  $\geq 275$  N/mm<sup>2</sup>      **Yield Strength (Rp<sub>0.2</sub>):**  $\geq 125$  N/mm<sup>2</sup>  
**Elongation:**  $\geq 17\%$       **Charpy-V Impact (R.T.):**  $\geq 16$  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.