

5087

Comparable specifications

ASME SFA- 5.10: ER5087
EN ISO 18273: S Al 5087 (AlMg4.5MnZr(A))
Werkstoff Nr.: 3.3546

Description and applications*

* *Illustrative, not-exhaustive list*

Aluminium alloy filler metal for welding aluminium alloys with up to 5% Mg and alloys where a higher tensile strength is required.

The alloying element Zr produces improved resistance to hot cracking during solidification. Zirconium acts as well to produce a fine-grained weld-metal microstructure, improving both bending and corrosion resistance.

This alloy allows achieving a superior wire surface finish for improved feedability and arc performances. Suitable especially for complicated welding constructions with critical tensions.

This grade may be used for applications such as:

- marine fabrication and repair;
- cryogenic tanks;
- shipbuilding and other high strength structural aluminium applications;
- railway industry;
- automotive industry;
- offshore industry.

Weldable base materials*

* *Illustrative, not-exhaustive list*

AlMg4.5Mn, AlMg5Mn, AlMg3, AlMg5, AlMgMn, AlMgSi0.5, AlMgSi0.7, AlMgSi1, AlMg1SiCu, AlZnMg1, etc.

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 275 N/mm² **Yield Strength (Rp_{0.2}):** ≥ 125 N/mm²
Elongation: $\geq 17\%$

Chemical composition*

* *For reference only values*

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Be
max	max	max	0.70	4.50	0.05	max	max	0.10	max
0.25	0.40	0.05	1.10	5.20	0.25	0.25	0.15	0.20	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.

Lot classification

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