Technical Data Sheet
Aluminum Alloy Filler Metal

PM NORWAY A/S

4047

Comparable specifications

ASME SFA- 5.10: ER4047
EN ISO 18273: S Al 4047 (AlSi12)
Werkstoff Nr.: 3.2585

Description and applications*

* *Illustrative, not-exhaustive list*

Silicon-aluminium alloy for welding and brazing.
This alloy is characterized by low melting point and narrow freezing range. It has a higher silicon content than ER4043, which provides an increased fluidity and reduced shrinkage: it can actually been used as a substitute for ER4043 to increase silicon in the weld metal and produce higher fillet weld shear strength.

Excellent wetting action and excellent corrosion resistance. Hot cracking is significantly reduced when using 4047 as a filler alloy in most applications.
This alloy produces bright and almost smut-free welds. It is also characterized by low shrinkage rate.

Non-heat treatable. After anodizing, the weld will assume a different colour.

This grade may be used for:
- welding or brazing of several aluminium alloys (see “weldable base materials”) and cast alloys 710.0 and 711.0;
- applications with sustained elevated temperatures;
- applications such as thin sections where its higher fluidity and lower shrinkage rate are important for distortion control;
- applications such as joint sealing of pressurized fluids and gases, due to its excellent wetting action;
- applications such as radiators and air conditioning components, general repair and maintenance, water and gas tight applications, etc.

Weldable base materials*

* *Illustrative, not-exhaustive list*

Base 6XXX alloys; aluminium alloys 1060, 1350, 3003, 3004, 3005, 5005, 5053, 6053, 6061, 6951, 7005; cast alloys 710.0, 711.0.

All-weld metal mech. properties*

* *For reference only values*

Tensile strength (Rm): ≥ 130 N/mm^2 **Yield Strength ($Rp_{0.2}$):** ≥ 60 N/mm^2
Elongation: ≥ 5%

Chemical composition*

* *For reference only values*

Si	Fe	Cu	Mn	Mg	Zn	Ti	Be
11.00	max	max	max	max	max	max	max
13.00	0.60	0.30	0.15	0.10	0.20	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.

Customized labels are available upon request.

Lot classification

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

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