

## Aluminium electrode

### Classification

ISO 18273 : Al 4047A (AlSi12(A))

### General description

Especially for welding forged and cast aluminium alloys containing more than 7% Si as main alloying element  
 Also applicable as surfacing electrode  
 Good weldability, no porosity  
 Applicable when Al-properties are unknown

### Welding positions



ISO/ASME PA/1G PB/2F PF/3Gup

### Current type

DC +

### Chemical composition (w%), typical, all weld metal

Si	Fe	Cu	Mn	Mg	Zn	Ti	Others	Al
11.0-12.0	0.40 max.	0.05 max.	0.10 max.	0.05 max.	0.10 max.	0.10 max.	0.15 max.	Bal.

### Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Elongation (%)
Typical values	AW	30	80	30

### Packaging and available sizes

	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
Unit: Can	Pieces / unit	227	152	102
	Net weight/unit (Kg)	2.0	2.0	2.0

AlSi12: rev. EN 21

**Liability:** All information in this data sheet is based on the best available knowledge, is subject to change without notice and can only be considered as suitable for general guidance **Fumes:** Consult information on Welding Safety Sheet, available upon request

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## Materials to be welded

Aluminium cast alloys with silicon level up to approx. 12%, like:  
 G-AlSi 10Mg (Werkstoff-Nr. 3.2381)  
 G-AlSi 12 (Werkstoff-Nr. 3.2581)

## Calculation data

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (s)*	Energy E(kJ)	Dep.rate H(kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
2.5x350	60-90	DC+				8.8		
3.2x350	80-110	DC+				13.2		
4.0x350	100-140	DC+				19.6		

## Welding parameters, optimum fill passes

Welding positions Diameter (mm)	PA/1G	PB/2F	PF/3G up
2.5	80A	80A	75A
3.2	100A	100A	95A
4.0	130A	130A	125A

## Remarks/ Application advice

If the thickness is more than 10 mm, it is advisable to preheat at 150 - 250°C