

AlSi12

CLASSIFICATION

ISO 18273	Al 4047A (AlSi12[Al])	F-Nr	23*
*:Deviation,see remarks		Mat-Nr	3.2585

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/3Gu

CURRENT TYPE

DC +

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

Al	Si
bal.	12.0

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	0.2% Proof strength [N/mm ²]	Tensile strength [N/mm ²]	Elongation [%]
Typical values	AW	80	180	5

PACKAGING AND AVAILABLE SIZES

Metal can	Diameter (mm)	2.5	3.2	4.0
	Length (mm)	350	350	350
	Pieces / unit	-	-	-
	Net weight/unit (kg)	2.0	2.0	2.0

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EXAMPLES OF MATERIALS TO BE WELDED

Aluminium cast alloys with silicon level up to approx. 12%, like

Mat. Nr

G-AlSi 10Mg

3.2381

G-AlSi 12

3.2581

CALCULATION DATA

Sizes Diam. x length (mm)	Current range (A)	Current type	Weight/ 1000 pcs (kg)
2.5 x 350	40-70	DC+	8.8
3.2 x 350	60-90	DC+	13.2
4.0 x 350	80-120	DC+	19.6

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter (mm)	Welding positions		
	PA/1G	PB/2F	PF/3Gup
2.5	60A	60A	55A
3.2	80A	80A	75A
4.0	110A	110A	105A

REMARKS / APPLICATION ADVICE

If the thickness is more than 15 mm, it is advisable to preheat at 150 - 250°C

Welding with short arc preferable

Electrode with 90°angle on material