



Solid wire used for the GMAW and as a brazing alloy with fusion alloys with Si content > 7%, with lower melting point and higher fluidity than AlSi5 wires. It has good mechanical properties and excellent corrosion resistance. Its low melting point ensure a very low deformations in the parent metal. The high silicon content provides increased fluidity and minimize hot cracking. The alloy is generally used for brazing aluminium sheets, extrusions and casting and in applications with sustained elevated temperatures. After anodizing the welding will be gray-black color. Applications in automotive components, radiators and air conditioning. To be used with Ar, He, pure and mixed shielding gases.

Standards: **EN ISO 18273:16** **AWS A5.10:21**
Classification: **S Al 4047 (AlSi12(A))** **ER 4047**

CHEMICAL COMPOSITION OF THE WIRE (wt.-%)

elements	Sidergas Aluminium		EN ISO		AWS	
	min.	max.	min.	max.	min.	max.
Si	11,00	13,00	11,00	13,00	11,00	13,00
Fe	-	0,30	-	0,60	-	0,60
Cu	-	0,10	-	0,30	-	0,30
Mn	-	0,10	-	0,15	-	0,15
Mg	-	0,05	-	0,10	-	0,10
Cr	-	-	-	-	-	-
Zn	-	0,05	-	0,20	-	0,20
Ti	-	0,05	-	0,15	-	0,15
Be	-	0,0003	-	0,0003	-	0,0003
other each	-	0,05	-	0,05	-	0,05
other total	-	0,15	-	0,15	-	0,15
Al	rem.		rem.		rem.	

MECHANICAL PROPERTIES OF ALL-WELD METAL

	Sidergas Aluminium	EN ISO	AWS
	typical values (*)	minimum values	minimum values
Tensile strength (Rm)	150 [MPa]	mechanical properties of the weld metal are not part of the classification	mechanical properties of the weld metal are not part of the classification
Yield strength (Rp0,2)	70 [MPa]		
Elongation (A%)	10 (L₀=5d₀)		

(*) Typical values are referred to EN ISO 14175 I1 (100% Ar); base material -; welding position PA; preheating T -; Interpass T -; as-welded condition. Tensile test acc. to EN ISO 4136; Charpy impact test acc. to EN ISO 9016. Text results should not be assumed to be expected results in a particular application or weldment.

PHYSICAL PROPERTIES

	Sidergas Aluminium
	typical values
Melting range (solidus-liquidus)	573 - 585 [°C]
Density	2.650 [kg/m³]

PRODUCT APPROVALS

	Vd-TÜV	CWB	CE
SHIELDING GASES (EN ISO 14175):	I1 - I3	100% Ar	according to EN 13479:17 and regulation (UE) No. 305/2011
GRADING:	S Al 4047	ER 4047	
DIAMETERS (mm):	1,0 - 1,6	1,00-1,60	
WELDING POSITIONS (EN ISO 6947):	PA, PB, PC, PD PE, PF	All	

OPERATING DATA

welding positions (*):  PA, PB, PC, PD, PE, PF type of current and polarity:  D.C. +

(*) according to EN ISO 6947:20

BASE MATERIALS

The alloy is designed for welding non heat-treatable base alloys.

EN 1780-2:02: G-AlSi12; G-AlSi11; G-CuAlSi12(Cu); G-AlSi10Mg; G-AlSi10Mg(Cu); G-AlSi9Mg; G-AlSi9Cu3; G-AlSi7Mg; G-AlSi6Cu4); EN573-3:13: AlMgSi1; AlMgSi0,8.

TECHNICAL DELIVERY CONDITIONS

The technical delivery conditions (type of product, dimensions, tolerance and marking) are in accordance with EN 544:18 and EN ISO 14344:10

PACKAGING AND AVAILABLE SIZES

mm.	D-100 (0.45 kg)	D-200 (2.0kg)	D-300 (7.0 kg)	KS-300 (7.0kg)	K-415 (10 kg)	D-355 (18kg)	KS-400 (40kg)	MINIPAC60 (60 kg)	DRUM280 (80kg)	SUPERPAC550 (173 kg)	MASTERPAC 1200 (400 kg)
0.80	X	X	X (6.0 kg.)	X (6.0 kg.)	-	-	-	-	-	-	-
1.00	X	X	X	X	-	-	-	X	X	X	X
1.20	X	X	X	X	-	X	X	X	X	X	X
1.60	-	X	X	X	X	X	X	X	X	X	X
2.00	-	-	X	X	X	X	X	X	-	X	X
2.40	-	-	X	X	X	X	X	X	-	X	X
3.20	-	-	X	-	X	X	X	-	-	-	X

Other sizes and packaging available upon request