



Certified Quality System

GMAW welding wire for
Aluminium and Aluminium Alloys

SIDERGAS M4047

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 AISi15 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 18273:04** **AWS A5.10:12**
Classification: **S AI 4047A (AISI12(A))** **ER 4047**

CHEMICAL COMPOSITION OF THE WIRE (wt.-%)

elements	Sidergas		EN ISO		AWS	
	min.	max.	min.	max.	min.	max.
Si	11,00	13,00	11,00	13,00	11,00	13,00
Fe	-	0,60	-	0,60	-	0,60
Cu	-	0,10	-	0,30	-	0,30
Mn	-	0,15	-	0,15	-	0,15
Mg	-	0,10	-	0,10	-	0,10
Cr	-	-	-	-	-	-
Zn	-	0,20	-	0,20	-	0,20
Ti	-	0,15	-	0,15	-	0,15
Be	-	0,0003	-	0,0003	-	0,0003
altri ciascuno	-	0,05	-	0,05	-	0,05
altri totale	-	0,15	-	0,15	-	0,15
Al	resto		resto		resto	

MECHANICAL PROPERTIES OF ALL-WELD METAL

	Sidergas	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 (L _o =5d _o)		

(*) Typical values are referred to EN ISO 14175 I1 (100% Ar), in the as-welded condition. Text results should not be assumed to be expected results in a particular application or weldment.

PHYSICAL PROPERTIES


	Sidergas
	typical values
Melting range	573 - 585 [°C]
Density	2.650 [kg/m ³]

PRODUCT APPROVALS

	CE
SHIELDING GASES (EN ISO 14175):	(according to EN 13479:04 and Regulation (UE) No. 305/2011)
GRADING:	

OPERATING DATA

welding positions (*):  PA, PB, PC, PD, PE, PF

type of current and polarity:  D.C. +

(*) according to EN ISO 6947:11

BASE MATERIALS

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

EN 1780-2:02: G-AISi12; G-AISi11; G-CuAISi12(Cu); G-AISi10Mg; G-AISi10Mg(Cu); G-AISi9Mg; G-AISi9Cu3; G-AISi7Mg; G-AISi6Cu4); 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 ISO 544:11 and EN ISO 14344:10.

PACKAGING AND AVAILABLE SIZES

mm.	D-100 plastic (0,5 kg.)	D-200 plastic (2,0 kg.)	D-300 plastic (7,0 kg.)	KS-300 wire basket (7,0 kg.)	MIDIPAC 150 (50 kg.)	MIDIPAC 300 (100 kg.)	SUPERPAC 550 (180 kg.)	MASTERPAC 1200 (400 kg.)
0.80	X	X	X (5,0 kg.)	X (5,0 kg.)	X	X	X	X
1.00	X	X	X	X	X	X	X	X
1.20	X	X	X	X	X	X	X	X
1.60			X	X			X	X