

Product Data Sheet

G 'Gas-shielded metal-arc welding'

Sureweld S-6

Prepared by Jose Luis	Qualified by P-O Oskarsson	Approved by	Reg no None	Cancelling None	Reg date	Page 1 (2)
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REASON FOR ISSUE

New Product

GENERAL

Sureweld S-6 is a MIG wire for general use suitable for many carbon steel surfaces even if light rust or mill scale are present in the metal surface. It can be used with 100% CO2 or a mix of Argon and CO2 and will provide a smooth, consistent welding arc with controlled spatter production. The wetting properties are excellent and the weld puddle is very fluid and easy to control.

Sureweld S-6 is available in small diameters and small packages so it is suitable for welding on thinner materials and sheet metal, usually used in general manufacturing and hobby projects.

CLASSIFICATIONS Wire Electrode

AWS A5.18 ER70S-6 H4

APPROVALS

Not applicable

CHEMICAL COMPOSITION

Wire/Strip (%)

	Nom
C	0.079
Si	0.893
Mn	1.523
P	0.012
S	0.010
Cr	0.026
Ni	0.010
Mo	0.006
V	0.002
Cu	0.140

MECHANICAL PROPERTIES OF WELD METAL

All Weld Metal

Shielding Gas	Condition	Rp0.2 [MPa/ksi]		Rm [MPa/ksi]			A4 [%]	
		Min	Typ	Min	Max	Typ	Min	Typ
98% CO2 / 2% Ar	As welded		400/58			483/70		22

Comments:

Shielding Gas	Condition	Temp [°C/°F]	Charpy V [J/ft-lb]	
			Min	Typ
98% CO2 / 2% Ar	As welded	-20/-4 -29/-20 -40/-40		102/75 89/66 70/52

Comments:

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ECONOMICS & CURRENT DATA

Dimension Ø	Current (A)		W	η	H			Feed			U		
	Min	Max			Nom	Nom	Min	Max	Nom	Min	Max	Nom	Min
0.6 mm (0.025 in.)	75	200	16.5	96	0.8 kg/h (1.8 lb/h)	3.0 kg/h (6.6 lb/h)	1.18 kg/h (2.6 lb/h)	12.7 m/min (500 in/min)	16.5 m/min (650 in/min)	13.2 m/min (520 in/min)	24	26	25
0.8 mm (0.030 in.)	75	200	16.5	96	0.8 kg/h (1.8 lb/h)	3.0 kg/h (6.6 lb/h)	1.18 kg/h (2.6 lb/h)	12.7 m/min (500 in/min)	16.5 m/min (650 in/min)	13.2 m/min (520 in/min)	24	26	25
0.9 mm (0.035 in.)	80	250	16.5	96	0.9 kg/h (2 lb/h)	3.1 kg/h (6.8 lb/h)	1.22 kg/h (2.7 lb/h)	10.1 m/min (398 in/min)	13.9 m/min (547 in/min)	12.2 m/min (480 in/min)	25	27	26
1.1 mm	100	350	16.5	96	0.9 kg/h (2 lb/h)	5.9 kg/h (13 lb/h)		7.6 m/min (299 in/min)	12.7 m/min (500 in/min)	8.9 m/min (350 in/min)	25	30	27

W = Gas consumption (l/min)

η = Filler metal efficiency (g weld metal x 100 / g wire)(%)

H = Deposition rate (kg weld metal/hour arc time)

Feed = Wire feed speed (m/min)

U = Arc voltage (V)