



MIG/MAG Welding Wire for Mild Steels

Classification

ISO 14341-A : G 42 3 C G3Si1 / G 42 3 M G3Si1
 AWS A5.18 : ER70S-6

General Description

AS SG2 is a copper coated gas metal arc welding wire in 15 kg spools or 250 kg drums. It is particularly designed for semi-automatic and full-automatic GMAW applications. Working temperature can range between -50 to 450°C.

CO₂ or 80 % Ar- 20 % CO₂ are used for gas shielding.

Chemical Composition (w%), Typical, Wire

C	Si	Mn
0.08	0.85	1.50
0.06 *	0.55 *	1.10 *

*) Typical weld metal composition (CO₂ gas shielding)

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 440 N/mm²
 Tensile Strength : 540 N/mm²
 Elongation (L=5d) : 30 %
 Impact (ISO-V) : 60 J (-30°C)

Approvals

CE, DB, GOST, NAKS, SEPRO, TSE, TÜV

Shielding gas : CO₂

ABS	BV	DNV	GL	LRS	RINA	RMRS	TL
3SA,3YSA	3YM	III YMS	3YS	3S 3YS H15	3Y42	3Y	3YMS

Shielding gas : Ar+CO₂

ABS	DNV	GL	TL
3YSA	III YMS	3YS	3YMS

Shielding Gases (ISO 14175 / EN 439)

MAG : M21 - Ar + 5-25% CO₂
 C1 - CO₂ (100%)

Packing and Diameter Informations

Diameter	0.8	1.0	1.2	1.6	2.0	2.4	3.2	Spool Weight	Drum Weight
MIG/MAG Wire	X	X	X	X	-	-	-	15 kg	250 kg

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Materials to be Welded

	DIN	EN
General Structural Steels	St 33, St 34, St 37, St 44, St 44-2, St 44-3, St 52, St 52-3 St 37-4, St 44-4, St 52-4 St 50-2, St 60-2 C 10 - C 35 ; Ck 10 - Ck 35	S185, S235, S275, S355 P235TR2 - P355T2 E295, E335 C10 - C35
Fine Grained Steels	StE 255 - StE 420 WStE 255 - WStE 355	S255N - S420N P255NH - P355NH
Pipe Materials	StE 210-7 - StE 360-7 StE 290-7 TM - StE 360-7 TM X42, X46, X52, X60 (API 5LX)	L210 - L360NB L290MB - L360MB -
Boiler and Pressure Vessel Steels	17 Mn 4, 19 Mn 6 HI, HII	P295GH, P355GH P235GH, P265GH
Elevated Temperature Steels	St 35-8, St 45-8	P235G1TH - P255G1TH
Ship Plates	A, B, C, D, E AH32 - EH36	- -
Cast Steels	GS-38, GS-45, GS-52	GE200, GE240, GE260

Welding Parameters / Welding Positions

Current Type and Polarity : DC (+)

Arc Type	Diameter [mm]	Current [A]	Voltage [V]
Short Arc	0.8	60 - 140	18 - 22
Short Arc	1.0	80 - 175	18 - 24
Short Arc	1.2	120 - 200	18 - 27
Sprey Arc	1.2	150 - 280	25 - 40
Sprey Arc	1.6	225 - 480	28 - 40



1G/PA



2F/PB



2G/PC



4G/PE



3G/PF



3G/PG