

## MIG/MAG Welding Wire for Mild Steels

### Classification

ISO 14341-A : G 42 3 C G4Si1 / G 42 3 M G4Si1  
 AWS A5.18 : ER70S-6

### General Description

AS SG3 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.

CO<sub>2</sub> or 80 % Ar- 20 % CO<sub>2</sub> are used for gas shielding.

### Chemical Composition (w%), Typical, Wire

C	Si	Mn
0.08	1.00	1.70
0.06 *	0.60 *	1.20 *

\*) Typical weld metal composition (CO<sub>2</sub> gas shielding)

### Approvals

DB, GOST, NAKS, SEPRO, TSE, TÜV

**BV** (3Y)    **GL** (3YS)    CO<sub>2</sub> gas shielding  
                   **GL** (3YS)    Ar+CO<sub>2</sub> gas shielding

### Mechanical Properties, Typical, All Weld Metal

Yield Strength : 470 N/mm<sup>2</sup>  
 Tensile Strength : 570 N/mm<sup>2</sup>  
 Elongation (L=5d) : 25 %  
 Impact (ISO-V) : 60 J (–30°C)

### Shielding Gases (ISO 14175 / EN 439)

MAG : M21 - Ar + 5-25% CO<sub>2</sub>  
 C1 - CO<sub>2</sub> (100%)

Current Type and Polarity : DC (+)

### Materials to be Welded

	DIN	EN
<b>General Structural Steels</b>	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, St 70-2 C 10 - C 35 ; Ck 10 - Ck 35	S275, S355 P235TR2 - P355T2 E295, E335, E360 C10 - C35
<b>Fine Grained Steels</b>	StE 255 - StE 460 WStE 255 - WStE 355	S255N - S460N P255NH - P355NH
<b>Pipe Materials</b>	StE 210-7 - StE 415-7 X42, X46, X52, X60 (API 5LX)	L210 - L415NB –
<b>Boiler and Pressure Vessel Steels</b>	17 Mn 4, 19 Mn 6 HI, HII	P295GH, P355GH P235GH, P265GH
<b>Elevated Temperature Steels</b>	St 35-8, St 45-8	P235G1TH - P255G1TH
<b>Ship Plates</b>	A, B, C, D, E AH32 - EH36	– –
<b>Cast Steels</b>	GS-38, GS-45, GS-52	GE200, GE240, GE260

### 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