



TIG Rod for Mild Steels

Classification

TS EN ISO 636-A : W 42 3 W4Si1
 AWS A5.18 : ER70S-6

General Description

AS TIG SG3 is suitable for GTA welding of un-alloyed structural steels with a tensile strength up to 570 N/mm², ship plates and fine-grained C-Mn steels. It gives high-strength weld metal at working temperatures varying between – 50 to 450°C. It contains higher Si and Mn than AS TIG SG2 welding rod.

Chemical Composition (w%), Typical, Wire

C	Si	Mn
0.08	1.00	1.70

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 470 N/mm²
 Tensile Strength : 570 N/mm²
 Elongation (L=5d) : 25 %
 Impact (ISO-V) : 60 J (–30°C)

Shielding Gases (ISO 14175 / EN 439)

TIG : I1 - Ar (100%)
 Current Type and Polarity : DC (–)

Materials to be Welded

	DIN	EN
General Structural Steels	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
Fine Grained Steels	StE 255 - StE 460 WStE 255 - WStE 355	S255N - S460N P255NH - P355NH
Pipe Materials	StE 210-7 - StE 415-7 X42, X46, X52, X60 (API 5LX)	L210 - L415NB –
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

Packing and Diameter Informations

Diameter	0.8	1.0	1.2	1.6	2.0	2.4	3.2	Tube Weight
TIG Rod	-	-	-	-	X	X	X	5 kg