

TIG Rod for High Strength and Low Alloyed Steels

Classification

AWS A5.28 : ER70S-A1 (ER80S-G*) EN ISO 636-A : W2Mo
 TS EN ISO 21952-A : W MoSi
 EN ISO 21952-A : W MoSi

(*) Nearest classification

General Description

It is a low alloyed TIG rod, used for the welding creep resistant 0.5 % Mo steels and fine grained steels. It gives a weld metal that is used in operating temperatures between -40°C and 500°C . It is used in the welding of steel construction applications, boiler and pressure vessels, gas pipes and turbin rotors.

Industry: Ship building, heavy machinery, petro-chemical, power generation, metal fabrication industry

Chemical Composition (w%), Wire

C	Si	Mn	Mo	Cr	Cu
0.085 - 0.09	0.60 - 0.70	1.15 - 1.20	0.50	< 0.15	< 0.25

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 530 N/mm²
 Tensile Strength : 640 N/mm²
 Elongation (L=5d) : 27 %
 Impact (ISO-V) : 150 J (+20°C)
 90 J (-20°C)

Shielding Gases (ISO 14175 / EN 439)

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

Materials to be Welded

	DIN	EN
Fine Grained Steels	StE 255 - StE 460 ; WStE 255 - WStE 460 -	S255N - S460N ; P255NH - P460NH S275ML ; S355M - S420M
Pipe Materials	StE 320.7 - StE 415.7 StE 360.7 TM - StE 480.7 TM X52, X56, X60, X65 (API 5LX)	L320 - L415NB L360MB - L485MB -
Boiler and Pressure Vessel Steels	15Mo3, 17Mn4, 19Mn6 22Mo4, 20MnMoNi55	16Mo3, P295GH, P310GH -
Elevated Temperature Steels	St 35.8 - St 45.8	P235G1TH - P255G1TH
Cast Steels	GS-45, GS-52, GS-60 -	GE240, GE260, GE300 G20Mo5
Creep Resistant Steels	17MnMoV6-4, 15NiCuMoNb5 -	- 20MnMoNi4-5

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