



TIG Rod for High Strength and Low Alloyed Steels

Classification

AWS A5.28 : ER90S-B9
 TS EN ISO 21952-A : W CrMo9 1
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General Description

It is a low alloyed TIG rod used for the welding high temperature strength Cr-Mo (9 % Cr, 1.0 % Mo) steels in operating temperatures up to 650°C. With addition of "V" and "Nb", it gives a weld metal that has corrosion and thermal oxidation resistance. It is also resistant to creep and hydrogen cracking. Especially used for hydrogen fabrication that are manufactured from Cr-Mo-V-Nb steels.

Industry: Turbine and vessel fabrication, thermal plants, chemical and petro-chemical industry

Chemical Composition (w%), Typical, Wire

C	Si	Mn	Ni	Cr	Mo	V	Cu	Al	Nb	N
0.09	0.30	0.50	0.50	9.10	0.90	0.20	< 0.25	0.04	0.07	0.05

Mechanical Properties, Typical, All Weld Metal

Yield Strength : 690 N/mm²
 Tensile Strength : 780 N/mm²
 Elongation (L=5d) : 21 %
 Impact (ISO-V) : 150 J (+20°C)
 30 J (-20°C)

Shielding Gases (ISO 14175 / EN 439)

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

Materials to be Welded

	DIN	EN	Wr. Nr.
Creep Resistant Steels	-	X10CrMoVNb9-1	1.4903
	-	X20CrMoV12-1	1.4922
	X12 CrMo 9 1	-	1.7386

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