

TIG Rods C-Mn steels and low-alloy steels

CARBOROD NiMo1 is a copper coated WMn3Ni1Mo/ER100S-G type solid TIG welding rod depositing C-1.5Mn1.0Ni0.4Mn weld metal for welding of high strength steels. Suitable for use mainly with Ar shielding gas.

CARBOROD NiMo1 deposits weld metal with excellent mechanical properties for the welding of higher yield strength steels, <620 MPa. The weld metal has good impact toughness values down to -40°C. Typical applications include the welding of higher strength fine grained steels used in the fabrication of oil field equipment, process plant and cranes, where low temperature weld metal toughness properties are also required.

Low heat inputs are recommended to obtain optimum joint mechanical properties.

Classification	
EN ISO	16834-A: W Mn3Ni1Mo
AWS	A5.28: ER 100S-G

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Ni	Mo
0.08	1.8	0.6	≤ 0.015	≤ 0.018	1	0.4

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-40 °C
As Welded	≥ 620	700-890	≥ 20	≥ 120	≥ 80


Gas test: 100% Ar

Shielding Gas - EN ISO 14175 : I1

Materials

S(P)460-S(P)620

Storage
Keep dry and avoid condensation

Current condition and welding position
DC-

PA PB PC PD PE PF PG

Packaging data

Diam. (mm)	Packaging Type	Weight (kg)	Code
1.2	TUB	5	●
1.6	TUB	5	●
2.0	TUB	5	●
2.4	TUB	5	●
3.2	TUB	5	●
4.0	TUB	5	●