

MIG/MAG solid wires-TIG rods High strength steels

CARBOFIL NiMo1 is a copper coated GMn3Ni1Mo/ER100S-G type solid MAG welding wire supplied both random and precision layer wound, depositing C-1.3Mn1.1Ni0.4Mn weld metal for welding of high strength steels. Suitable for use with Ar-CO2 mix shielding gases.

CARBOFIL NiMo1 is used to weld <620 MPa yield strength steels with excellent mechanical properties. Because of its chemical composition the weld metal has good impact toughness 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		Approvals	Grade
EN ISO	16834-A: G 62 4 M Mn3Ni1Mo	DB	●
AWS	A5.28: ER 100S-G	TÜV	●

CE

Chemical analysis (Typical values in %)

	C	Mn	Si	P	S	Ni	Mo
Wire	0.08	1.5	0.7	0.010	0.010	1.1	0.4
All weld metal (*)	0.07	1.3	0.5	0.010	0.010	1.1	0.4

(*) 82% Ar+18% CO2

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	≥18	≥100	≥60
As Welded (**)	≥550	640-820	≥18	≥100	≥47

Gas test: (*) 82% Ar+18% CO2, (**) 100% CO2

Shielding Gas - EN ISO 14175 : C1, M2

Materials

S(P)460-S(P)620

Storage	Current condition and welding position
Keep dry and avoid condensation	DC+
	

Packaging data

Packaging Type	B300
Diam(mm) / weight(kg)	16
1.0	●
1.2	●