

TIG Rods C-Mn steels and low-alloy steels

CARBOROD Ni1 is a copper coated W3Ni1/ER 80S-Ni1 type solid TIG welding rod depositing a C-0.8Mn 1.0Ni weld metal. Suitable for use with Ar shielding gas.

CARBOROD Ni1 is used for welding of 1%Ni steels and fine grain steels, when the weld metal toughness properties down to -60°C are required in the as welded conditions. The weld metal contains less than 1%Ni conforming to NACE requirement.

Classification	
EN ISO	636-A: W 46 6 W3Ni1
AWS	A5.28: ER 80S-Ni1

Approvals	Grade
ABS	ER 80S-Ni1
TÜV	●

CE

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Ni
0.08	1.1	0.6	≤ 0.020	≤ 0.020	0.9

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)	
				+20 °C	-60 °C
As Welded	≥ 480	550-680	≥ 24	≥ 120	≥ 47


Gas test: 100% Ar

Shielding Gas - EN ISO 14175 : I1

Materials

S(P)235-S(P)460, GP240-GP280

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
1.6	TUB	5	●
2.0	TUB	5	●
2.4	TUB	5	●
3.2	TUB	5	●