

CARBOROD 1A is a copper coated W4Si1/ER70S-6 type solid TIG welding rod depositing a C-1.5Mn weld metal. Suitable for use mainly with Ar shielding gas.

CARBOROD 1A is used for the welding of mild and C-Mn steels, requiring a yield strength <460MPa, with impact toughness properties down to -40°C.

Increased levels of manganese and silicon scavenge oxides and promote weld pool fluidity resulting in a superior weld bead appearance with an even contour finish.

Classification

EN ISO	636-A: W 46 4 4Si1
AWS	A5.18: ER 70S-6

Chemical analysis (Typical values in %)

C	Mn	Si	P	S
0.08	1.7	0.9	≤0.020	≤0.020

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	≥ 460	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-

