

TIG Rods C-Mn steels and low-alloy steels

CARBOROD KV5 is a copper coated ER80S-B2 type solid TIG welding rod depositing a C-1¼Cr ½Mo weld metal for the welding of creep resisting steels. Suitable for use with Ar shielding gas.

CARBOROD KV5 is used for welding of similar composition used in power generation and chemical plant applications for service temperatures <550°C. Also suitable where some resistance to hydrogen attack by sulphur bearing crude oil is required. Main applications include boilers, plate and tube steels as well as for the welding of quenched and tempered and case hardening steels produced mainly from steels 13CrMo4-5 or ASTM A335 P11/P12.

The CARBOROD KV5 deposits very clean weld metal with guaranteed Bruscato factor X<13, and with controlled As, Sb, Sn content to minimise the propensity to temper embrittlement. CARBOROD KV5 is proposed, where the operational guidelines are given by the ASME norms.

Classification	
EN ISO	21952-B: W 55M 1CM
AWS	A5.28: ER 80S-B2

Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Mo
0.08	0.56	0.50	≤0.020	≤0.020	1.25	≤0.50

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)
				-29 °C
PWHT 620°C x 1h	≥470	≥550	≥20	≥47
PWHT 690°C x 1h	≥355	≥550	≥20	≥70


Gas test: I1

Shielding Gas - EN ISO 14175 : I1

Materials

13CrMo4-5; 13CrMoSi5-5; G17CrMo5-5

Storage
Keep dry and avoid condensation.

Current condition and welding position
DC-

PA PB PC PE PF

Packaging data

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