CARBOFIL KV5

OERLIKON

MIG/MAG solid wires-TIG rods
C-Mn and low-alloy steels

CARBOFIL KV5 is a copper coated ER80S-B2 type solid MAG welding wire supplied precision layer wound, depositing a C-1¼Cr½Mo weld metal for the welding of creep resisting steels. Ar-CO2 mix shielding gases are preferred for improved mechanical properties.

CARBOFIL 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 are boiler, 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 CARBOFIL KV5 is a very clean welding wire with guaranteed X<15 Bruscato factor, and with controlled As, Sb, Sn content against temper embrittlement. CARBOFIL KV5 is used, where the operational guidelines are given by ASME norms.

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

Chemical analysis (Typical values in %)

	C	Mn	Si	P	S	Cr	Ni	Mo	Cu
Wire	0.08-0.12	0.4-0.7	0.4-0.7	max. 0.01	max. 0.01	1.2-1.5	max. 0.2	0.4-0.65	max. 0.2

All-weld metal Mechanical Properties

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

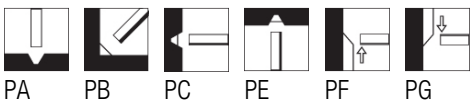
Gas test: M21-Arcal 21

Shielding Gas - EN ISO 14175 : 100% CO2, M21-Arcal 21

Materials

13 CrMo4-5, 25 CrMo 4, 14 CrMo 4-5, 16 MnCr 5

Current condition and welding position
DC+



Packaging data

Packaging Type	B300	S300
Diam(mm) / weight(kg)	16	15
0.8	●	●
1.0	●	●
1.2	●	●