CARBO WELD SCHWEISSMATERIALIEN GMBH

CARBO F-Ni Co

Standards

Material No.	2.4883
DIN 8555	MF 23-GF-250-CKNPTZ
AWS A5.11	E NiCrMo 5

Characteristics

High alloyed nickel based tubular wire.
The CARBO F-Ni Co type deposit has outstanding physical characteristics and is resistant to both, oxidation and reduction corrosion. It work hardens under impact and by machining to ca.400 HB – even at high temperatures – without deforming the deposit.
Thick layers should be buffered with CARBO F-4337.
CARBO F-Ni Co is used in general for surfacing of all work-pieces subject to mechanical stress combined with corrosion and/or to high temperatures (from 400 – 750°C)

Operating temperature

Rt. up to +400° C

Base materials

Main applications: Surfacing of hot working tools as hot forging dies, hot shear blades, punches, swages, dies, press tools, milling rolls and valves, etc.

Welding instructions

To achieve a crack-free overlay, the base material should be preheated to 300 – 400°C, depending on the alloy.

Mechanical properties of all-weld metal (typical values)

Tensile strength R_m N/mm²	Yield strength $R_{p0,2}$ N/mm²	Elongation A_5 %	Hardness HB	Hardness HB workhardened
680	500	>10	ca. 220	ca. 420

Weld metal analysis (typical, wt. %)

C	Cr	Mo	W	V	Co	Fe	Ni
0,08	16	16	4,5	0,35	2,5	5	Base

Gas types EN 439

I1, Argon

Current

= +

Current intensity

DIA (mm)	DIA (inch)	Volt	Amps	Delivering form	
1,2	3/64	19 - 22	120 - 220		
1,6	1/16	20 - 26	160 - 260	**G**	
2,0	5/64	22 - 27	220 - 280	**G**	
2,4	3/32	24 - 28	260 - 340	**G**	**S**
2,8	7/64	25 - 29	300 - 400		**S**
3,2	1 / 8	26 - 30	320 - 460		**S**

Delivering form

O = **Flux cored wire self shielding**
G = **Flux cored wire for shielded arc welding**
S = **Flux cored wire for submerged arc welding**

Coils, weight B/BS 300 = 15 kg B 450 = 30 kg pay off pack = 150 / 300 kg

Rev. 000