CARBO WELD
SCHWEISSMATERIALIEN GMBH

CARBOLOY C

International standards

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

Approvals ---

Typical applications and characteristics

High alloyed nickel based AC electrode with 160 % recovery.
The CARBOLOY C 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 29/9.
CARBOLOY C 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 Room temperature 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) as welded / work-hardened
680	500	> 10	ca. 220 ca. 400

Weld metal analysis (typical, wt. %)

C	Cr	Mo	W	Fe	Ni
0,06	15	16	4,0	5	Bal.

Current = + / ~ 50 V

Welding positions PA, PB, PC, PD, PE, PF

Rebaking 1 h, 300 °C +/ - 10 °C (if required)

Flux-cored wire equivalent CARBOLLOY F-C

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 350	90 - 110	138	552	36,2	5,0	20,0
3,2 x 350	120 - 140	84	336	59,3	5,0	20,0
4,0 x 350	160 - 180	54	216	92,7	5,0	20,0
5,0 x 450	190 - 210	32	128	186,3	6,0	24,0

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