

CARBO F-S 12



DIN EN 14700

T Co 2-50-CTZ

ASME IIC SFA 5.21 / AWS A 5.21 ERCCoCr-B

General characteristics

The deposit of CARBO F-S 12 is a cobalt base alloy of austenitic/ledeburitic structure with embedded CrW carbides. The weld metal is highly resistant to corrosion, impact, abrasive wear as well as thermal shocks and heavy mechanical impact. The deposit is only machinable by hard faced tools. Working temperatures should be kept between 400 C° and 800°C, depending on base material and type of construction. Slow cooling, if necessary oven cooling, is recommended for low alloyed and austenitic steels. Subsequent heat treatment (stress relief at 700°C approx.) is not necessary, except on large structures.

Working temperature from room temperature up to +800°C

Typical applications

Hardfacing of cutting edges of long knives and other tools used in the wood, plastic, paper, carpet and chemical industry.

Weld metal analysis (typical, wt %)

	C	Si	Mn	Cr	Co	W	Fe			
Gew-%	1,4	0,8	0,1	29,0	Basis	8,0	<2,5			

Mechanical properties of all-weld metal (typical values)

Meltingrange:	1350°C	Hardness at Rt.	ca. 47 HRc
Density g/cm ³ :	8,7	Hardness at +600°C	ca. 39 HRc
		Hardness at +800°C	ca. 35 HRc

Operating data

Current: =+ or pulsed

Gas typs EN ISO 14175: M13: 99% Argon with 1% Oxygen

Dia (mm)	DIA (inch)	Volt	Amps	Delivering form
1,2	3/64	16 - 23	80 - 220	G *
1,6	1/16	18 - 27	100 - 260	G *
2,0	4/64	19 - 28	120 - 320	G *
2,4	3/32	19 - 29	160 - 380	G *
2,8	7/64	20 - 30	180 - 400	S *

Delivering form

O * = gasless (open arc), G * = gas shielded, S * = Submerged Arc

Coil "BS 300" = 15 kg

Coil "BS 450" = 25 kg

Drums = 300 kg

Statements on composition and application are just for the appliers information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.