

CARBO F-S 21



DIN EN 14700

T Co 1-350-CKTZ

ASME IIC SFA 5.21 / AWS A 5.21 R CoCr-E

General characteristics

The deposit of CARBO F- 21 gives a Cobalt-base alloy of high tenacity as well as extreme corrosion- and heat resistance. The weld metal is highly resistant to impact and is work-hardening up to 45 HRc. Welding temperature should be kept between 400°C and 600°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 +1150°C

Typical applications

Due to its above-mentioned characteristics F-S 21 is particularly recommended for use on all work pieces which are subject to corrosion, impact wear as well as high temperatures or thermal shocks.

Weld metal analysis (typical, wt %)

	C	Si	Mn	Cr	Co	Mo	Ni	Fe		
Gew-%	0,3	0,9	1,0	28,0	Basis	5,5	3,0	3,0		

Mechanical properties of all-weld metal (typical values)

Meltingrange:	1250°C	Hardness at Rt.	ca. 30 HRc
Density g/cm ³ :	8,3	Hardness at +300°C	ca. 280 HB
		Hardness after work hardend	ca. 45 HRc

Operating data

Current: =+

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.