

Standards	AWS A5.13	ECoCr-C
	DIN 8555	E 20-MF-55-CTZ

Characteristics CARBO F-S 1 is a tubular wire which deposits a cobalt base alloy of austenitic-ledgeburitic structure with embedded CrW carbides. It is the hardest of the standard Cobalt base alloys. The weld metal is highly resistant to corrosion, impact, abrasive wear as well as thermal shocks and heavy mechanical impact. The deposits are only machinable by grinding

Welding instructions Working temperature should be kept between 400° 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 + 1000° C

Typical applications Wear pads, rotary seal rings, pump sleeves, centre less grinder work rests

Mechanical properties of all-weld metal (typical values)	At Rt. HRc	+ 600°C HRc	+ 800°C HRc	Melting range °C	Density g/cm³
	ca. 55	ca.44	ca. 34	1250-1290	8,7

Weld metal analysis (typical, wt. %)	C	Si	Mn	Cr	W	Fe	Co	Others
	2,2	1,2	1	30	12,5	3	Base	< 3

Gas types EN 439 M13: 99% Argon with 1% Oxygen

Current = +

Current intensity	DIA (mm)	DIA (inch)	Volt	Amps	Delivering form
	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
	2,8	7/64	25 - 29	300 - 400	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

Statements on composition and application are just for the applier's 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.