

**Standards**

DIN 8555	MF 20-MF-350-CKTZ
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**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° 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.

**Typical applications** Due to its above-mentioned characteristics CARBO 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.

**Working temperature** From room temperature up to + 300° C

Hardness of all-weld metal ( typical values )	At Rt. HRC	+ 300°C HB	work hardened HRC	Melting- point	Density g/cm <sup>3</sup>
	ca. 30	ca. 280	ca. 45	1250°C	8,3

Weld metal analysis (typical, wt. %)	C	Si	Mn	Cr	Mo	Ni	Co	Fe
	0,3	0,9	1	28	5,5	3	Base	3

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

**Current** = +

Current intensity	DIA (mm)	DIA (inch)	Volt	Amps	Delivering form
	1,2	3/64	19 - 22	120 - 220	G
	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.