

Standards

Material No.	1.4122
EN 1600	MF 17 1 B 22
DIN 8555	MF 6-GF-50-CP

Characteristics

CARBO F-4122 is a tubular wire for plating and joining equal and similar ferritic Cr-steels and cast steels. Proper weldings are subject to the recommended heat treatment.

The electrode is specially suitable for sealing surfaces on water-, steam- and gas-valves for working temperatures up to 475 °C.

The deposit is scale resistant up to 800°C and can be tempered.

Working temperature

Room temperature up to 500° C

Base materials

1.4122 X35CrMo17

Recommendations for fabrication

Since ferritic steels tend to embrittlement caused by coarse grain development the heat input should be as low as possible.

For hardfacing on low alloyed base materials a preheating of 150°C-350°C subject to the thickness (on materials with higher strength 350°C) should be done.

Post weld treatment is not necessary but quench hardening to the desired hardness may be applied.

Mechanical properties of all-weld metal (typical values)

Tensile strength R_m N/mm ²	Yield strength $R_{p0,2}$ N/mm ²	Elongation A_5 %	Hardness HRc
800	600	12	Ca. 48

Weld metal analysis (typical, wt. %)

C	Cr	Mo	Ni
0,35	17	1	+

Gas types EN 439

I1, M13: Argon and 99% Argon with 1% Oxygen

Current

= +

Current intensity

DIA (mm)	DIA (inch)	Volt	Amps	Delivering form	
1,2	1/32	18 - 24	120 - 200	G	
1,6	1/16	20 - 26	160 - 260	O	G
2,0	5/64	22 - 27	220 - 280	O	G
2,4	3/32	24 - 28	260 - 340	O	G S
2,8	7/64	25 - 29	300 - 400	O	S
3,2	1 / 8	26 - 30	320 - 460		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