CARBO F-4115

Standards

Material No.	1.4115
EN 1600	MF 17 Mo
DIN 8555	MF 6-GF-45-PR

Characteristics

CARBO F-4115 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 450 °C.
The deposit is scale resistant up to 950°C and can be tempered.

Working temperature

Room temperature up to 450° 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/mm²	Yield strength $R_{p0,2}$ N/mm²	Elongation A_5 %	Hardness as welded	Hardness quenched
700	500	15	200 HB	43 HRc

Weld metal analysis (typical, wt. %)

C	Cr	Mo
0,20	17	1,2

Gas types EN 439

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

Current

= +

Current intensity

DIA (mm)	DIA (inch)	Volt	Amps	Delivering form		
1,6	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**	
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