CARBO WELD®
SCHWEISSMATERIALIEN GMBH

CARBO 4122 MPR

International standards

Material No.	1.4122
EN ISO 3581-A	EZ 17 1 R 52
EN 14700	Fe7-UM-50-CP

Approvals ---

Characteristics and typical applications

CARBO 4122 MPR is a rutile coated electrode with a recovery of 150% 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-, steamand gas-valves for working temperatures up to 475°C. The deposit is scale resistant up to 800°C and can be tempered.

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.

Operating temperature 20°C up to 475°C

Base materials 1.4122 X35CrMo17

Mechanical properties of all-weld metal (typical values)

Tensile strength Rm N/mm²	Yield strength Rp0,2 N/mm²	Elongation A5 %	Hardness HRc
800	600	12	ca. 48

Weld metal analysis % (typical)

C	Si	Mn	Cr	Mo	Ni
0,35	0,5	0,5	16,0	1,1	+

Current = + / ~, 50 V

Welding positions PA, PB

Rebaking 1 h, 350° C + / - 10° C (if necessary)

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg / 1000	kg / packet	kg / carton
2,5 x 350	70 - 100	167	667	30,0	5,0	20,0
3,2 x 350	100 -120	99	394	50,7	5,0	20,0
4,0 x 450	120 - 160	61	243	98,8	6,0	24,0
5,0 x 450	160 - 220	39	156	154,3	6,0	24,0

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