

CARBO 4120 B

International standards	Material No.	1.4120
	EN 1600	E 13 1 B 22
	DIN 8555	E 6-UM-200-PR

Approvals ---

Characteristics and typical applications CARBO 4120 B is a basic coated electrode 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.
The deposit is scale resistant up to 800°C and can be tempered.

Operating temperature Room temperature up to 500° C

Base materials .4021 X20Cr13 1.4120 GX20CrMo13

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 HB as welded	
	730	540	12	ca. 150	ca. 200

Weld metal analysis % (typical)	C	Si	Mn	Cr	Mo	Ni
	0,2	0,9	0,8	14	1,2	1

Current = +

Welding positions PA, PB, PC, PD, PE, PF

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 300	50 - 80				4,0	16,0
3,2 x 350	80 - 110			29,7	5,0	20,0
4,0 x 350	100 - 160			45,0	5,0	20,0
5,0 x 450	150 - 200			90,3	6,0	24,0