

CARBO 4015 MPR

International standards	Material No.	1.4015
	EN 1600	E 17 R 52
	AWS A 5.4	E430-16
	DIN 8555	E5-UM-200-PR

Approvals ---

Characteristics and typical applications CARBO 4015 MPR is a rutile coated electrode with a recovery of 160% 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, especially for sulphuric gases. The deposit is scale resistant up to 950°C and can be tempered.

Operating temperature Room temperature up to 450° C

Base materials 1.4057 X22CrNi17 1.4059 G-X22CrNi17 1.4562 G-X5CrNi17
1.4740 G-X40CrSi17 1.4741 X10CrSi18 1.4742 X10CrAl18

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
	540	340	20	ca. 200

Weld metal analysis % (typical)	C	Si	Mn	Cr
	0,05	0,8	0,7	17

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	60 - 90	178	712	28,1	5,0	20,0
3,2 x 350	80 - 120	105	421	47,5	5,0	20,0
4,0 x 450	120 - 160	65	259	92,6	6,0	24,0
5,0 x 450	160 - 220	41	166	144,7	6,0	24,0