

# CARBO 4015 MPR

<b>International standards</b>	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.

<b>Mechanical properties of all-weld metal (typical values)</b>	<b>Tensile strength</b> R <sub>m</sub> N/mm <sup>2</sup>	<b>Yield strength</b> R <sub>p0,2</sub> N/mm <sup>2</sup>	<b>Elongation</b> A <sub>5</sub> %	<b>Hardness</b> HB
	540	340	20	ca. 200

<b>Weld metal analysis % (typical)</b>	<b>C</b>	<b>Si</b>	<b>Mn</b>	<b>Cr</b>
	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

Rev. 000

Statements on composition and application are just for the applier's information. Statements on mechanical properties always refer to the all-weld-metal according to valid standards. Carbo-Weld may change the characteristics of its products without notice. We recommend the applier to check our products for their special application autonomously.