

CARBO 4351 MPR

International Standards	Material No.	1.4351
	EN 1600	E 13 4 R 53
	AWS A 5.4	E410NiMo-16
	DIN 8555	E5-UM-400-KRTZ

Approvals

Characteristics and typical applications

CARBO 4351 MPR is a rutile coated electrode with a recovery of 150% for plating and joining equal and similar ferritic Cr-steels and cast steels. The Alloy is highly suitable for welding on tough, corrosion resistant Continuous-Cast Rolls and also wear parts from the Steel Industry and Large machinery. Apart from corrosion resistance, it also has a further capability in protecting against cavitation and erosion.

Typical applications

Bridge store; depositions to thick areas of water, steam and gas fittings for operating temperatures to 450° C; rope pouring roles; on alloying buffer layers

Operating temperature

Base materials 1.4008 GX8CrNi13 1.4313 X4CrNi13-4 1.4313 GX5CrNi13-4

Recommendations for fabrication

Preheating and heat treatments as necessary for ferritic Cr-steels are not necessary

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 %	Impact strength ISO – V J + 20°C	Hardness HB
1100	700	15	> 40	ca. 410

Weld metal analysis (typical, wt %)

C	Si	Mn	Cr	Ni	Mo
0,06	0,7	0,6	13	4,5	0,5

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

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