

CARBO 4431 MPR

International standards	rds Material No. 1.4431									
	EN ISO 3581-A		E 20 10 3 L	R 53	-					
	AWS A 5.4		E308MoL-1		-					
					-					
Approvals										
Characteristics and typical applications	CARBO 4431 MPR is an AC-weldable, rutile coated electrode with a recovery of 160%, suitable for joining corrosion-proof CrNiMo steels of low carbon content as well as stabilised and non-stabilised steels of identical or similar characteristics which are resistant to chemical agents. Especially on base materials which are at a risk of cracking, The electrode can be used for joining austenitic to ferritic steels. Same suitability for joint welding heat treatable steels, stainless Cr-steels, manganese steels, screening steels to each other and to dissimilar steel types.									
Operating temperature	- 60° C up to + 300° C									
Base materials	Dissimilar joints of 1.4583 with H I / H II, 17Mn 4, StE 355 1.4583 with P235GH / P256GH, P295GH, P355N									
	1.4404X2CrNiMo17-13-21.4436X3CrNiMo17-13-31.4435X2CrNiMo18-14-31.4408GX5CrNiMo19-11-21.4409X2CrNoMoN18-11-21.4571X6CrNiMoTi17-12-21.4429X2CrNiMoN17-13-31.4583(G)X10CrNiMoNb-18-121.4401X5CrNiMo17-12-21.4583(G)X10CrNiMoNb-18-12									
	1.4429 X2CrNil	MoN17-1	11-2 1 3-3 1	.4571 X6Cr	NiMoTi17-12-2					
Mechanical properties of all-weld metal	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength	MoN17-1 Mo17-12- Yield	11-2 1 3-3 1	.4571 X6Cr	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J					
	1.4429 X2CrNil 1.4401 X5CrNil Tensile	MoN17-1 Mo17-12- Yield R _{p0,2}	11-2 1 3-3 1 -2 strength	.4571 X6Cr .4583 (G)X1 Elongatio	NiMoTi17-12-2 10CrNiMoNb-18-12					
of all-weld metal	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength R _m N/mm ² 700	MoN17-1 Mo17-12 Yield R _{p0,7}	11-2 1 3-3 1 -2 strength 2 N/mm ² 540	.4571 X6Cr .4583 (G)X1 Elongatio A ₅ % 30	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					
of all-weld metal (typical values) Weld metal analysis %	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength R _m N/mm ² 700 C Si	MoN17-1 Mo17-12 Yield R _{p0,2}	11-2 1 3-3 1 -2 1 strength 2 strength 2 540 1 Cr N	.4571 X6Cr .4583 (G)X1 Elongatio A₅ % 30	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					
of all-weld metal (typical values)	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength R _m N/mm ² 700	MoN17-1 Mo17-12 Yield R _{p0,7}	11-2 1 3-3 1 -2 1 strength 2 strength 2 540 1 Cr N	.4571 X6Cr .4583 (G)X1 Elongatio A ₅ % 30	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					
of all-weld metal (typical values) Weld metal analysis %	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength R _m N/mm ² 700 C Si	MoN17-1 Mo17-12 Yield R _{p0,2}	11-2 1 3-3 1 -2 1 strength 2 strength 2 540 1 Cr N	.4571 X6Cr .4583 (G)X1 Elongatio A₅ % 30	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					
of all-weld metal (typical values) Weld metal analysis % (tpyical wt %)	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength Rm N/mm² 700 C Si < 0,04 0,8	MoN17-1 Mo17-12 Yield R _{p0,2}	11-2 1 3-3 1 -2 1 strength 2 strength 2 540 1 Cr N	.4571 X6Cr .4583 (G)X1 Elongatio A₅ % 30	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					
of all-weld metal (typical values) Weld metal analysis % (tpyical wt %) Current	1.4429 X2CrNil 1.4401 X5CrNil Tensile strength R_m N/mm² 700 C Si < 0,04 0,8 = + / ~ / 50 V	MoN17-1 Mo17-12- Yield R _{p0,2}	11-2 1 3-3 1 -2 1 strength 2 Strength 2 540 1 Cr N 19 1	.4571 X6Cr .4583 (G)X1 Elongatio A₅ % 30 Ii Mo 0 3	NiMoTi17-12-2 10CrNiMoNb-18-12 n Impact strength ISO – V J at - 60° C					

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/packet	kg/carton
2,0 x 300	40 - 75	230	920	17,4	4,0	16,0
2,5 x 350	65 - 95	157	629	31,8	5,0	20,0
3,2 x 350	90 - 130	93	372	53,7	5,0	20,0
4,0 x 450	120 - 180	57	229	104,6	6,0	24,0
5,0 x 450	170 - 240	37	147	163,4	6,0	24,0

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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.