

# CARBO 4431 AC

<b>International standards</b>	Material No.	1.4431
	EN 1600	E 20 10 3 L R 12
	AWS A 5.4	E308MoL-17

**Approvals** TÜV, UDT

**Characteristics and typical applications**

CARBO 4431 AC is an AC-weldable, rutile coated electrode with an alloyed core, 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, CARBO 4431 AC 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

1.4404 X2CrNiMo17-13-2	1.4436 X3CrNiMo17-13-3
1.4435 X2CrNiMo18-14-3	1.4408 GX5CrNiMo19-11-2
1.4409 X2CrNiMo18-11-2	1.4571 X6CrNiMoTi17-12-2
1.4429 X2CrNiMo17-13-3	1.4583 (G)X10CrNiMoNb-18-12
1.4401 X5CrNiMo17-12-2	

**Mechanical properties of all-weld metal**

( typical values )

Tensile strength $R_m$ N/mm <sup>2</sup>	Yield strength $R_{p0,2}$ N/mm <sup>2</sup>	Elongation $A_5$ %	Impact strength ISO – V J at - 60° C
700	540	30	50

**Weld metal analysis %**  
( typical wt % )

C	Si	Mn	Cr	Ni	Mo
< 0,04	0,8	0,7	19	10	3

**Current** = + / ~ / 50 V

**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
2,0 x 300	35 - 50	345	1379	11,6	4,0	16,0
2,5 x 300	40 - 85	217	870	18,4	4,0	16,0
3,2 x 350	70 - 115	138	551	36,3	5,0	20,0
4,0 x 350	95 - 140	91	364	55,0	5,0	20,0
5,0 x 450	125 - 180	54	217	110,6	6,0	24,0