

International standards	Material No.	1.4440
	EN ISO 3581-A	E 18 16 5 N L R 12
	AWS A 5.4	E 317 L-17

Approvals

Characteristics

CARBO 4440 AC is an AC-weldable, rutile coated electrode with an alloyed core, suitable for joining corrosion-resistant CrNiMoN steels as well as for austenitic-ferritic joints.

Used on a base metal of identical characteristics the weld metal is very high corrosion resistant, especially under non oxidizing, halogenious conditions. The high molybdenum content results in extended resistance against pitting and intercrystalline corrosion (wet corrosion up to 350° C). The austenitic deposit is non magnetic and safe against hot cracking, including micro cracking.

Typical applications

Fertilizer plants producing uric acid

Operating temperature - 120° C up to + 400° C

Base materials

1.3941	X4CrNi18-13	1.4435	X2CrNiMo18-14-3
1.3952	X2CrNiMoN18-14-3	1.4438	X2CrNiMo18-15-4
1.3953	GX2CrNiMo 18-15	1.4439	GX3CrNiMoN17-13-5
1.3955	GX12CrNi18-11	1.4446	GX2CrNiMoN17-13-4
1.3958	X5CrNi18-11	1.4448	GX6CrNiMo17-13
1.4406	X2CrNiMoN17-12-2	1.4449	X3CrNiMo18-12-3
1.4429	X2CrNiMoN17-13-3		

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 at - 120° C
580	400	25	55

Weld metal analysis

(typical, wt %)

C	Si	Mn	Cr	Ni	Mo	N
< 0,03	0,8	1	18	17,5	4,5	0,12

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
2,5 x 300	60 - 80	217	870	18,4	4,0	16,0
3,2 x 350	80 - 110	138	551	36,3	5,0	20,0
4,0 x 350	110 - 140	91	364	55,0	5,0	20,0
5,0 x 450	140 - 180	54	217	110,6	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.