

International standards	Material No.	1.4440
	EN 1600	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