

CARBO 4316 AC

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|--------------------------------|---------------|---------------|
| International standards | Material No. | 1.4316 |
| | EN ISO 3581-A | E 19 9 L R 12 |
| | AWS A 5.4 | E308L-17 |

Approvals TÜV, DB, CE

Characteristics and typical applications CARBO 4316 AC is an AC-weldable, rutile coated electrode with an alloyed core, suitable for joining corrosion-proof CrNi steels with low carbon content as well as stabilised and non-stabilised steels of identical or similar characteristics which are resistant to chemical agents. Used on a base metal of identical characteristics the weld metal is resistant to wet corrosion up to 350° C.
CARBO 4316 AC is scale resistant up to 875°C in an air and oxidising gases atmosphere. No intercrystalline corrosion due to low carbon content.
The weld metal is capable of taking high polish.

Operating temperature -120° C up to +350° C

| | | |
|-----------------------|---------------------|-----------------------|
| Base materials | 1.4301 X5CrNi18-10 | 1.4311 X2CrNi18-10 |
| | 1.4303 X4CrNi18-12 | 1.4312 GX10CrNi18-10 |
| | 1.4306 X2CrNi19-11 | 1.4541 X6CrNiTi18-10 |
| | 1.4308 GX5CrNi19-10 | 1.4550 X6CrNiNb18-10 |
| | 1.4309 GX2CrNi19-11 | 1.4552 GX5CrNiNb19-11 |

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|--|--|---|------------------------------|--|
| Mechanical properties of all-weld metal | 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 |
| | (typical values) | 560 | 380 | > 35 |

| | | | | | |
|---|----------|-----------|-----------|-----------|-----------|
| Weld metal analysis (typical, wt %) | C | Si | Mn | Cr | Ni |
| | < 0,03 | 0,8 | 0,7 | 19 | 10 |

Current = + / ~ , 42 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 pcs. | kg/packet | kg/carton |
|-------------|--------------|-------------|-------------|--------------|-----------|-----------|
| 1.6 x 250 | 30 - 40 | 530 | 2121 | 6,6 | 3,5 | 14,0 |
| 2.0 x 300 | 40 - 55 | 345 | 1379 | 11,6 | 4,0 | 16,0 |
| 2.5 x 300 | 50 - 75 | 221 | 884 | 18,1 | 4,0 | 16, |
| 3.2 x 350 | 65 - 110 | 140 | 559 | 35,8 | 5,0 | 20, |
| 4.0 x 350 | 90 - 140 | 92 | 369 | 54,2 | 5,0 | 20, |
| 4.0 x 450 | 90 - 140 | 86 | 345 | 69,6 | 6,0 | 24, |
| 5.0 x 450 | 120 - 170 | 55 | 221 | 108,8 | 6,0 | 24, |

Rev. 001/12

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.