

|                                |               |             |
|--------------------------------|---------------|-------------|
| <b>International standards</b> | Material No.  | ~ 1.4919    |
|                                | EN ISO 3581-A | E 19 12 2 R |
|                                | AWS A 5.4     | E 316H-16   |

**Characteristics and typical applications**

CARBO 316 H AC is an AC-weldable, rutile coated high carbon CrNiMo electrode with an alloyed core, primarily intended for welding 316H, The alloy has an excellent resistance to pitting and intercrystalline corrosion.

316H derivatives and stainless steels exposed to temperatures above 400°C.

Heat treatment is generally not necessary, in special cases Quench annealing at 1050°C.

**Interpass temperature** Max. 150°C

**Base materials**

|        |            |
|--------|------------|
| 1.4401 | ASTM 316   |
| 1.4571 | ASTM 316Ti |
| 1.4919 | ASTM 316H  |

**Mechanical properties of all-weld metal**

(typical values)

| Tensile strength<br>$R_m$ N/mm <sup>2</sup> | Yield strength<br>$R_{p0,2}$ N/mm <sup>2</sup> | Elongation<br>$A_5$ % | Hardness<br>HB | Impact strength<br>ISO-V J<br>at +20° C |
|---|--|-----------------------|----------------|---|
| 610   | 470  | 35                    | Approx.210     | 50                                      |

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

| C    | Si  | Mn  | Cr | Ni | Mo  |
|------|-----|-----|----|----|-----|
| 0,06 | 0,8 | 1,0 | 19 | 12 | 2,8 |

**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   | 50 - 75      | 221         | 884         | 18,1    | 4,0       | 16,0      |
| 3,2 x 350   | 85 - 120     | 140         | 559         | 35,8    | 5,0       | 20,0      |
| 4,0 x 350   | 120 - 160    | 92          | 369         | 54,2    | 5,0       | 20,0      |
| 5,0 x 450   | 160 - 190    | 55          | 221         | 108,8   | 6,0       | 24,0      |

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.