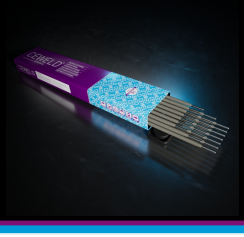


# CEWELD E 9016-B9

certilas® THE FILLER METAL SPECIALIST

**TYPE**

Basic, Cr and Mo-alloyed electrode for heat resistant steels T/P91 and T/P92

**APPLICATIONS**

Headers, main steam piping and turbine casings, in fossil fuelled power generating plants. Oil refineries and coal liquefaction and gasification plants. Preheat and Interpas temperature 200°C - 300°C.

**PROPERTIES**

CEWELD® E 9016-B9 is designed to weld equivalent 'type T91' T92 CrMo steels modified with small additions of Tungsten and Vanadium to give improved long term creep properties. These consumables are specifically intended for high integrity structural service at elevated temperature so the minor alloy additions responsible for its creep strength are kept above the minimum considered necessary to ensure satisfactory performance. In this case, weldments will be weakest in the softened (intercritical) HAZ region of parent material, as indicated by so-called 'type IV' failure in transverse weld creep tests.

**CLASSIFICATION**

| | |
|---|---|
| AWS | A 5.5: E9016-B91 |
| EN ISO | 3580-A: E CrMo91 |
| F-nr | 4 |
| FM | 4 |

**SUITABLE FOR**

**9%Cr, 1%Mo, VNb**
1.7389, 1.7386, 1.4922, 1.4935, 1.4904, 1.4903, 1.4955,
X11CrMo9-1, X12CrMo9.1, X20CrMoV10-1, X10CrMoVNb9-1, GX12CrMoVNbN9-1
ASTM Grade 91, T91, P91, F91, FP91, WP91,C12A
STPA28, STBA28

**APPROVALS**

CE

**WELDING POSITIONS**


**TYPICAL CHEMICAL ANALYSIS OF WELD METAL (%)**

| C | Si | Mn | P | S | Cr | Ni | Mo | Nb | V | N |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.1 | 0.3 | 0.9 | 0.008 | 0.008 | 9 | 0.5 | 1 | 0.08 | 0.2 | 0.03 |

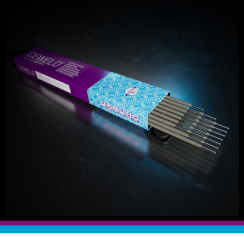
**MECHANICAL PROPERTIES**

| Heat Treatment | $R_{P0,2}$ (MPa) | Rm (MPa) | A5 (%) | Impact Energy (J) ISO-V | Hardness |
|---|---|---|---|---|---|
| | | | | RT | |
| As Welded | 550 | 680 | 18 | 60 | HRc |

**REDRYING**

400°C / 1 hr

**GAS ACC. EN ISO 14175**



# CEWELD E 9016-B9



E 9016-B9 3,2 X 350MM

| Packaging | KG/unit | EanCode |
|---|---|---|
| VAC pack | 1,9 | 8720663401465 |