



# CEWELD AA 90S-B9

**TYPE** Metal core wire for heat and creep resistant applications.( Typ CrMo 91)

**APPLICATIONS** CEWELD AA 90S-B9 is for welding 9-12% Cr Steel like P91/T91. Headers, main steam piping and turbine casings, in fossil fuelled power generating plants. Oil refineries and coal liquefaction and gasification plants.

**PROPERTIES** AA 90S-B9 is designed to weld equivalent 'type 91' P91 9CrMo steels modified with small additions of niobium, vanadium and nitrogen 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 5.28: ~ER 90S-B9
EN ISO	17634-B: 9C1MV
F-nr	6
FM	4

**SUITABLE FOR**

1.4903  
X10CrMoVNb9-1, GX12CrMoVNbN9-1  
ASTM A 335 Gr. P91, A 336 Gr. F91, A 369 Gr. FP91, A 387 Gr. 91, A 213 Gr. T91, A 182  
AFNOR NF A-49213/A-49219 Gr TU Z 10, CDVNb 09-01

**APPROVALS** CE

**WELDING POSITIONS**



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

C	Si	Mn	Cr	Ni	Mo	V
0.1	0.3	1	9	0.3	1	0.2

**ALL WELD MECHANICAL  
PROPERTIES**

Heat Treatment	R <sub>p0.2</sub> MPa	R <sub>m</sub> MPa	A <sub>5</sub> (%)	Impact Energy (J) ISO-V RT	Hardness Brinell Hardness
760°C±15°C /2h	650	780	17	27	Avg. 260

**REDRYING TEMPERATURE** Not required

**GAS ACCORDING EN 14175** M21



# CEWELD AA 90S-B9

AA 90S-B9 1,2MM

Type	KG/unit	EANCode
BS-300	15	8720663401984