



CEWELD ER 90S-B9 (P91)

TYPE Medium alloyed, high-strength 9% Chromium alloy.

APPLICATIONS Designed for welding equivalent type 91~ 9% Cr Steels modified with small additions of Niobium, Vanadium and Nitrogen to offer improved long term creep properties. This alloy is specially intended for high integrity structural service at elevated temperature such as: Headers, main steam piping and turbine casings, gasification plants etc.

PROPERTIES Filler metal 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.

CLASSIFICATION

AWS	A 5.28: ER 90S-B91
EN ISO	21952-A: G CrMo91
W.Nr.	1.4903
F-nr	6
FM	4

SUITABLE FOR For matching P91, 9%Cr1%Mo modified, creep resisting martensitic steels
A 213 T91, A335 P91, A387 Gr91, A 182/A336 F91, X10CrMoVNb9-1, 1503 Gr91, AFNOR NF A-49213/A-49219 Gr TU Z 10, CDVNb 09-01

APPROVALS CE

WELDING POSITIONS



TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)

C	Si	Mn	Cr	Ni	Mo	V	Nb
0.07	0.4	0.5	9	0.45	0.95	0.2	0.05

MECHANICAL PROPERTIES

Heat Treatment	R _{P0.2} (MPa)	R _m (MPa)	A ₅ (%)	Impact Energy (J) ISO-V		Hardness
				RT		
730°C- 760°C 2h	560	780	23	60		HRc

REDRYING Not required

GAS ACC. EN ISO 14175 M21



CEWELD ER 90S-B9 (P91)

ER 90S-B9 (P91) 0,8MM

Packaging	KG/unit	EanCode
BS-300	15	8720663416926

ER 90S-B9 (P91) 1,0MM

Packaging	KG/unit	EanCode
BS-300	15	8720663416940

ER 90S-B9 (P91) 1,2MM

Packaging	KG/unit	EanCode
BS-300	15	8720663416988