



CEWELD ER 90S-B9 (P91)

TYPE	Medium alloyed copper-plated welding wire for welding creep and hydrogen pressure resistant steels. 9%Cr-alloyed steels (CrMo91, B91)							
APPLICATIONS	CEWELD® ER 90S-B9 (P91) is 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	CEWELD® ER 90S-B9 (P91) is specially designed for use in high-strength constructions at elevated temperatures. The optimized chem. The optimized chemical composition guarantees that the minor alloy additives responsible for creep resistance are above the minimum.							
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	P91: 9%Cr-1% Mo ISO 15608: ~5,4 C ≤ 0,35 %, 7,0 % ≤ Cr < 10,0 % und 0,7 < Mo ≤ 1,2 % 1.4903, 1.4904, 1.4922, 1.4955, 1.7386, 1.7389, X12CrMo 9 1, GX12CrMo 10 1, X11CrMo9-1, X7CrMo9-1, X10CrMoVNb9-1, ASTM: Grade 91, T91, P91, F91, FP91, A182/A336 grade F91, A213 grade T91, A217 grade C12A, A234 grade WP91, A387 grade 91, A335 grade P91 STPA28, STBA28							
APPROVALS	CE							
WELDING POSITIONS	PAPBPCPDPEPFPG							
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
	730°C- 760°C 2h		560	780	23	RT		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