



CEWELD ER 90S-B9 (P91) Tig

TYPE	Medium alloyed, high-strength creep resistant 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: W 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 % 1.7386, 1.7688, 1.7389, 1.4903, 1.4955 X12CrMo 9 1, GX12CrMo 10 1, X11CrMo9-1, X7CrMo9-1, X10CrMoVNb9-1, GX12CrMoVNbN9-1 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	      							
TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)	C	Si	Mn	Cr	Ni	Mo	V	Other
	0.1	0.32	0.52	9.15	0.65	0.95	0.22	0.04
MECHANICAL PROPERTIES	Heat Treatment	R _{P0,2} (MPa)	R _m (MPa)	A ₅ (%)	Impact Energy (J) ISO-V		Hardness	
	730°C- 760°C 3h	520	750	19	RT		HRc	
REDRYING	Not required							
GAS ACC. EN ISO 14175	I1							