CEWELD®

ER 90 S-G (P92)

CATEGORY	GMAW-GTAW Solid wires
TYPE	Medium alloyed, high-strength creep resistant 9% Cromium alloy.
APPLICATIONS	GTAW wire for high temperature, creep resistant, modified 9%Cr1%Mo martensitic steel (T92/P92). Alloy T92/P92 is widely used in the power generating industry for fossil fuel ultra-super-critical (USC) power plant boilers and turbines; the alloy is also finding applications in the chemical and oil and gas industries.
PROPERTIES	T92/P92 steel is commonly used at service temperatures up to 620°C. V, Nb and N additions provide this 'creep strength enhanced ferritic' (CSEF) alloy with improved high temperature creep resistance compared to standard CrMo creep resistant alloys.
CLASSIFICATION	AWS A-5.28: ER 90S-G EN ISO 21952-A: G/W ZCrMoWVNb9 0.5 1.5
SUITABLE FOR	For matching P92, 9%Cr1.7%W0.5%Mo, creep resisting martensitic steels. X10CrWMoVNb 9 2, ASTM: A182 grade F92, A213 grade T92, A335 grade P92, A387 grade 92
APPROVALS	CE approved
WELDING POSITIONS:	

WELD METAL ANALYSIS %

C	Mn	Si	Cr	Ni	Mo	V	W	Nb
0.1	0.45	0.40	8.80	0.50	0.42	0.20	1.60	0.05

MECHANICAL PROPERTIES

Heat Treatment	$R_{P0,2}$ (N/mm^2)	Rm (N/mm^2)	4d (%)	5d (%)	Impact Energy (J) ISO-V 20°C	Impact Energy (J) ISO-V -20°C	Hardness HV
PWHT	>540	>620	>17	>17			

PWHT 750ºC-760ºC / 2-3Hr

WELDING PARAMETERS / PACKING

Welding Parameters		Packing
D (mm)	Current (A)	
1,2		15

REDRYING TEMPERATURE	not required
GAS ACC. EN ISO 14175:	