

CATEGORY GTAW Solid wires

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

APPLICATIONS TIG/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: W ZCrMoWVNb 9 0,5 1,5
F-nr	6
FM	3

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

WELDING POSITIONS:



TYPICAL CHEMICAL ANALYSIS OF THE FILLER METAL (%)

C	Si	Mn	P	S	Cr	Ni	Mo	W	Nb
0.1	0.35	0.5	0.008	0.008	9.1	0.5	0.8	1.6	0.05

ALL WELD MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (MPa)	R _m (MPa)	A ₅ (%)
730°C- 760°C /3h	550	630	17

WELDING PARAMETERS / PACKING

D (MM)	WELDING PARAMETERS	WELDING PARAMETERS	PACKING	PACKING
	CURRENT (A)		SINGLE	MASTER CARTON
1,6 X 1000	50-90		5 KG CARTONS	25 KG CARTONS
2,4 X 1000	110-180		5 KG CARTONS	25 KG CARTONS
3,2 X 1000	150-250		5 KG CARTONS	25 KG CARTONS

REDRYING TEMPERATURE Not required

GAS ACCORDING EN 14175 I1