UP P91

Classification

AWS A5.23 : EB91 ISO 24598-A : S S CrMo91

Description & Applications

Solid wire for submerged arc welding of creep resistant steels alloyed Chromium and Molybdenum (9% Cr - 1% Mo) like P91 applied at service temperature up to 650°C. Creep resistance improved due to Niobium (Nb), Vanadium (V) and Nitrogen (N) addition.

Main applications: Chemical and petrochemical industry...

Base materials:

Creep resisting steels :

EN	*ASTM*
X10CrMoVNb 9-1	A 182/A 336 gr F91
	A 213 gr T91
	A 217 gr C12A
	A 234 gr WP91
	A 335 gr P91
	A 387 gr 91

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu
Min	0.07		0.40	8.50	0.40	0.85	
Max	0.13	0.50	1.25	10.50	1.00	1.15	0.10
Type	0.10	0.32	0.50	8.7	0.60	1.0	0.05

	Nb	V	Al	N	P	S	A/T
Min	0.03	0.15		0.03			
Max	0.10	0.25	0.04	0.07	0.010	0.010	0.50
Type	0.04	0.20	0.005	0.04	0.008	0.005	<0.50

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters				Flux
		Current (A)	Voltage (V)	Stick out (mm)	Speed (cm/min)	
SAW AC / = +	2.4 3.2 4.0	200 - 400 300 - 500 500 - 700	25 - 30 28 - 32 30 - 35	18 20 22	40 - 60 40 - 60 50 - 60	UP WP380