

9CrWV

TIG (GTAW)

SOLID WIRE FOR TIG WELDING OF P92 CREEP RESISTING STEELS

PRODUCT DESCRIPTION

Solid wire for TIG welding of P92 creep resisting steels

CLASSIFICATIONS

AWS A5.28M	ER90S-G [92]
ISO 21952-A	W ZCrMoWVNb 9 0.5 1.5
APPROVALS	TÜV

ASME IX QUALIFICATION

QW422	P-No 15E group 1
QW432	F-No 6
QW442	A-No 5

CHEMICAL COMPOSITION (WIRE WT %)

	C	Mn*	Si	S	P	Cr	Ni*	Mo	W	Nb	V	N	B	Al	Cu
min.	0.10	0.40	0.30	--	--	8.0	--	0.30	1.50	0.04	0.18	0.04	0.0025	--	--
max.	0.12	0.60	0.50	0.01	0.01	9.5	0.40	0.60	2.00	0.07	0.25	0.07	0.0060	0.01	0.10
Typical	0.11	0.5	0.40	0.004	0.008	9.2	0.35	0.45	1.8	0.05	0.2	0.05	0.0035	<0.01	<0.05

* Mn + Ni ≤ 1.0%

ALL-WELD MECHANICAL PROPERTIES

Properties after PWHT	Min.	Typical (760°C / 2-4h)			
		20°C	550°C	600°C	650°C
Tensile strength (MPa)	620	800	455	387	312
0.2% proof strength (MPa)	540	690	374	282	200
Elongation (%) 4d	16	22	24.5	20.5	28
5d	--	19	22.5	19	25.5
Reduction of area %	--	70	82	85	89
Impact ISO-V(J) +20°C	--	80	--	--	--
Hardness (HV) PWHT	--	265	--	--	--

TYPICAL OPERATING PARAMETERS

Shielding gas	Current	Diameter (mm)	Typical parameters
Argon	DC-	2.4	100A, 12V

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
0.8	15	BS300*	M9CRWV-08
1.6	5	PE TUBE	T9CRWV-16
2.0	5	PE TUBE	T9CRWV-20
2.4	5	PE TUBE	T9CRWV-24
3.2	5	PE TUBE	T9CRWV-32

* Small diameters wires or spools for auto-TIG applications : the classification or label and certificate will be G CrMo91