9CrWV TIG

TOP FEATURES

- Designed to weld equivalent 'type 92' steels modified with tungsten, vanadium, niobium, nitrogen, and a small addition of boron to give improved long term creep properties
- P92 steel has rupture strength up to 30% greater than that of P91 steel
- Specifically designed for high integrity structural service at elevated temperature

TYPICAL APPLICATIONS

- Main Steam Piping
- Oil Refineries
- Coal Liquefaction and Gasification Plants
- Power Generation Plants
- Turbine Castings

CLASSIFICATION

AWS A5.28M	ER90S-B92
EN ISO 21952-A	W ZCrMoWVNb 9 0.5 1.5

APPROVALS

TÜV

SHIELDING GASES (ACC. EN ISO 14175)

I1	Inert gas Ar (100%)

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

	C	Mn*	Si	S	P	Cr	Ni*	Mo	W	Nb	V	N	B	Al	Cu
Typical	0.11	0.5	0.40	0.004	0.008	9.2	0.35	0.45	1.7	0.05	0.2	0.05	0.0035	<0.01	<0.05

* Mn + Ni ≤ 1.0%

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

	Condition	Temperature	0.2% Proof strength (MPa)	Tensile strength (MPa)	Elongation (%)		Reduction of area (%)	Impact ISO-V (J) +20°C	Hardness, PWHT (HV)
					4d	5d			
Required: AWS A5.28			540	620	16	-	-	-	-
Typical values	PWHT	20°C	690	800	22	19	70	80	265
		550°C	374	455	24.5	22.5	82	-	-
		600°C	282	387	20.5	19	85	-	-
		650°C	200	312	28	25.5	89	-	-

PWHT = Postweld Heat treatment 760°C / 2-4h

- = not specified

AVAILABLE SIZES AND PACKAGING INFORMATION

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.4	PE Tube	5.0	T9CRWV-24

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application

Safety Data Sheets (SDS) are available here:

Subject to Change – The information is accurate to the best of our knowledge at the time of printing.
Please refer to www.lincolnelectric.eu for any updated information.