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

CLASSIFICATION

AWS A5.28M ER90S-G (92)

EN ISO 21952-A W ZCrMoWVNb 9 0.5 1.5

SHIELDING GASES (ACC. EN ISO 14175)

Inert gas Ar (100%)

TYPICAL APPLICATIONS

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

APPROVALS

ΤÜV

+

CHEMICAL COMPOSITION (WEIGHT %), TYPICAL

	С	Mn*	Si	S	Р	Cr	Ni*	Мо	W	Nb	V	N	В	Al	Cu
Min.	0.10	0.40	0.30			8.0	0.20	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	1.7	0.05	0.2	0.05	0.0035	<0.01	<0.05

^{*} Mn + Ni ≤ 1.0%

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

6		Typical (760°C / 2-4h)				
Properties after PWHT		Min.	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			

PACKAGING AND AVAILABLE SIZES

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

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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 $\underline{\text{www.lincolnelectric.eu}} \text{ for any updated information.}$

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