

9CrMoV-N TIG

TOP FEATURES

- Improved long term creep properties
- Can weld equivalent (P91) 9CrMoV steels
- Intended for high integrity structural service at elevated temperatures

TYPICAL APPLICATIONS

- Power Plants
- Elevated Temperature Piping
- Turbine Castings
- Oil Refineries

CLASSIFICATION

AWS A5.28M ER90S-B91
EN ISO 21952-A W CrMo91

SHIELDING GASES (ACC. EN ISO 14175)

I1 Inert gas Ar (100%)

APPROVALS

TÜV

+

CHEMICAL COMPOSITION (WEIGHT %), WIRE

	C	Mn*	Si	S	P	Cr	Ni*	Mo	Nb	V	N	Cu	Al
Min.	0.08	0.40	0.15			8.5	0.10	0.85	0.03	0.15	0.03		
Max.	0.13	0.80	0.50	0.010	0.010	9.5	0.40	1.10	0.08	0.25	0.07	0.10	0.04
Typical	0.10	0.45	0.35	0.004	0.008	9.2	0.45	1.0	0.05	0.2	0.05	0.03	<0.01

* Mn+Ni ≤ 1.0%, typical 0.9%.

For nickel below 0.4%, see 9CrMoV.

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Properties after PWHT	Min.	Typical 760°C/2h
Tensile strength (MPa)	620	780
0.2% Proof strength (MPa)	540	675
Elongation (%) 4d	17	23
5d	17	20
Reduction of area (%)		70
Impact ISO-V (J) +20°C	47	220
Hardness (HV) (mid)		265

Minimum impact required by ISO is 47 J.

PACKAGING AND AVAILABLE SIZES

Diameter x Length (mm)	Packaging	Weight (kg)	Item number
2.0	PE Tube	5.0	T9CRMVN-20
2.4	PE Tube	5.0	T9CRMVN-24
3.2	PE Tube	5.0	T9CRMVN-32

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.