

9CrMoV-N

SOLID WIRE FOR TIG WELDING OF MODIFIED 9Cr-1Mo CREEP RESISTING STEELS

PRODUCT DESCRIPTION

Solid wire, non-copper coated, for TIG welding of modified 9Cr-1Mo creep resisting steels

CLASSIFICATIONS

AWS A5.28M	ER90S-B91
ISO 21952-A	W CrMo91
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	Nb	V	N	Cu	Al
Min.	0.08	0.40	0.15	--	--	8.5	0.40	0.85	0.03	0.15	0.03	--	--
Max.	0.13	0.80	0.50	0.010	0.010	9.5	0.80	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+Nis 1.0%, typical 0.9%

For nickel below 0.4%, see 9CrMoV

ALL-WELD MECHANICAL PROPERTIES

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.

TYPICAL OPERATING PARAMETERS

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

PACKAGING DATA

Diameter (mm)	Weight (kg)	Packaging	Item number
0.8	5	S200*	M9CrMoVNMD08
0.8	15	BS300*	M9CrMoVN-08
0.9	5	S200*	M9CrMoVNMD09
1.0	5	S200*	M9CrMoVNMD10
1.2	5	S200*	M9CrMoVNMD12
1.6	5	PE TUBE	T9CRMOVN-16
2.0	5	PE TUBE	T9CRMOVN-20
2.4	5	PE TUBE	T9CRMOVN-24
3.2	5	PE TUBE	T9CRMOVN-32

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