

CHROMET 9MV-N

MMA (SMAW)

MMA ELECTRODE WITH OPTIMISED Ni TO MAXIMISE TOUGHNESS

PRODUCT DESCRIPTION

MMA electrode – Basic metal powder type made on high purity steel core wire with Ni addition and lower Nb for improved toughness, conforming to ISO 3580-A and AWS A5.5M.

Recovery is approx 120% with respect to core wire, 65% with respect to the whole electrode.

Moisture resistant coatings giving very low weld metal hydrogen levels.

CLASSIFICATIONS

AWS A5.5M	E9015-B91 H4
ISO 3580-A	E CrMo91 B 3 2 H5
APPROVALS	TÜV

ASME IX QUALIFICATION

QW422	P-No 15E group 1
QW432	F-No 4
QW442	A-No 5

WELDING POSITIONS (ISO/ASME)



PA/1G



PB/2F



PC/2G



PF/3Gu



PE/4G

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn*	Si	S	P	Cr	Ni**	Mo	Nb	V	N	Cu	Al
min.	0.08	0.50	--	--	--	8.0	0.40	0.85	0.04	0.15	0.03	--	--
max.	0.12	0.80	0.30	0.01	0.01	10.0	0.70	1.20	0.07	0.25	0.07	0.25	0.04
Typical	0.1	0.6	0.25	0.008	0.01	9.0	0.5	1.0	0.05	0.2	0.05	0.05	0.01

* Mn+Ni ≤ 1.2%

** Low Ni and low Mn+Ni variant is available : Chromet 9-B9.

ALL-WELD MECHANICAL PROPERTIES

Properties after PWHT	Min.*	Typical [760°C / 2h]			
		20°C	550°C	600°C	650°C
Tensile strength (MPa)	620	770	>450	>375	>285
0.2% proof strength (MPa)	530	640	>360	>255	>175
Elongation (%) 4d	17	22	--	--	--
5d	17	19	>15	>17	>21
Reduction of area %	--	60	>68	>75	>80
Impact ISO-V(J) +20°C	47	65	--	--	--
Lateral expansion +20°C	--	1.00	--	--	--
Hardness (HV) PWHT	--	250	--	--	--

* Minimum strength for parent material is lower than AWS requirement shown.

OPERATING PARAMETERS, DC + ve or AC (OCV: 70V Min)

Diameter (mm)	2.5	3.2	4.0	5.0
min. A	70	80	100	140
max. A	110	140	180	240

PACKAGING DATA

	Diameter (mm)	Length (mm)	Item number	No of pieces		Weight (kg)	
				can	carton	can	carton
METAL CAN	2.5	350	CH9MVN-25-1	195	585	4,2	12,6
	3.2	350	CH9MVN-32-1	120	360	4,2	12,6
	4.0	450	CH9MVN-40-1	81	243	5,5	16,5
	5.0	450	CH9MVN-50-1	50	150	5,2	15,6

Redrying : 250 – 300°C/1-2h to ensure H₂ < 10ml/100g, 300 – 350°C/1-2h to ensure H₂ < 5ml/100g. Maximum 420°C, 3 cycles, 10h total.

FUME DATA (WT % TYPICAL)

Fe	Mn	Ni	Cr	Cu	Pb	F	OES (mg/m ³)
15	5	<0.1	< 3	<0.1	< 0.1	18	1.7

All information in this data sheet is accurate to the best of our knowledge at the time of printing. Please refer to www.specialalloys.eu for any updated information.