

E10018-D2

MMA (SMAW)

MnMo LOW ALLOY STEEL MMA ELECTRODE

PRODUCT DESCRIPTION

MMA electrode with a basic flux coating on high purity mild steel core wire.
Moisture resistant coating provides very low weld metal hydrogen levels.
Recovery is about 120% with respect to core wire, 65% with respect to the whole electrode.

CLASSIFICATIONS

AWS A5.5M E10018-D2 H4
ISO 18275-A [E 624 MnMoB]
APPROVALS DNV

ASME IX QUALIFICATION

QW432 F-No 4
QW442 A-No 11

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	Cu
Min.	0.07	1.65	0.20	--	--	--	--	0.25	--
Max.	0.15	2.00	0.60	0.025	0.025	--	0.9	0.45	--
Typical	0.10	1.8	0.4	0.01	0.015	0.15	0.6	0.35	0.05

ALL-WELD MECHANICAL PROPERTIES

Typical after PWHT:	min	620°C/1h *	645°C/4h **
Tensile strength [MPa]	690	760	700
0.2% proof strength [MPa]	620	690	620
Elongation (%) 4d	16	25	26
5d	18	21	22
Reduction of area (%)	--	65	67
Impact ISO-V(J) 0°C	--	--	>100
- 40°C	27	>27	>60
Hardness HV	--	250	230
HRC	--	--	<22

* PWHT according to AWS.

** PWHT typically applied to weldments in alloy 4130 to meet <22HRC in HAZ for oilfield sour service (NACE MR0175).

OPERATING PARAMETERS, DC +VE OR AC (OCV: 70V MIN)

Diameter (mm)	2.5	3.2	4.0	5.0	6.0
min. A	70	80	100	140	200
max. A	110	140	180	240	300

PACKAGING DATA

	Diameter (mm)	Length (mm)	Item number	No of pieces		Weight (kg)	
				can	box	can	box
METAL CAN	2.5	350	E10018D2-25	230	690	4,5	13,5
	3.2	350	E10018D2-32	117	351	4,2	12,6
	4.0	450	E10018D2-40	81	243	5,6	16,8
	5.0	450	E10018D2-50	53	159	5,7	17,1

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	F	OES (mg/m³)
16	7	<0.1	<0.1	<0.2	17	5