13 CMV

BASIC COATED MMA ELECTRODE FOR CrMoV CREEP RESISTING STEELS

PRODUCT DESCRIPTION

MMA electrode with a basic, metal powder type, coating on low carbon high purity mild steel core wire. Moisture resistant coating provides very low weld metal hydrogen levels.
The 13CMV electrode is manufactured to order and is of a similar composition to the Chromet 1V although the carbon (at ~0.13%) and vanadium (at ~0.25%) are typically higher. The 13CMV can also be manufactured by prior agreement to the GE specification B50A273.
Recovery is about 115% with respect to core wire, 65% with respect to whole electrode.

SPECIFICATIONS

BS EN ISO 3580-A	(E CrMoV1 B 3 2)	
GE	B50A273	By prior agreement only

ASME IX QUALIFICATION

QW432	F-No --
QW442	A-No --

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	Mo	V *	Ni
Min.	0.10	0.3	--	--	--	1.00	0.90	0.20	--
Max.	0.15	1.0	0.50	0.020	0.030	1.50	1.30	0.30	0.4
Typical	0.13	0.6	0.3	0.012	0.012	1.2	1.10	0.25	0.05

* In the GE specification V = 0.40-0.55%

TYPICAL 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)	2.5	3.2	4.0	5.0
Length (mm)	350	350	450	450
kg/carton	13.5	15.0	18.0	16.5
Pieces/carton	687	396	258	153

STORAGE

3 hermetically sealed ring-pull metal tins per carton, with unlimited shelf life. Direct use from tin will give hydrogen < 5ml/100g for longer than a working shift of 8h. For electrodes that have been exposed:
Redry 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.
Storage of redried electrodes at 50 – 200°C in holding oven or heated quiver: no limit, but maximum 6 weeks recommended. Recommended ambient storage conditions for opened tins (using plastic lid): < 60% RH, >18°C.

FUME DATA

Fume composition, wt % typical

Fe	Mn	Cr	Ni	Cu	Pb	F	OES (mg/m³)
15	5	< 0.5	< 0.1	< 0.2	< 0.1	18	5