17.4.Cu.R

MMA ELECTRODE FOR 17-4PH BASE MATERIAL

PRODUCT DESCRIPTION

Rutile metal powder coating on pure low carbon steel core wire.
Moisture resistant coating gives very low weld metal hydrogen levels.
Diameters above 3.2mm are not recommended for positional welding.
Recovery is about 130% with respect to core wire, 65% with respect to whole electrode.

SPECIFICATIONS

There are no national specifications for this electrode, but is is similar to AWS A5.4 E630-16

ASME IX QUALIFICATION

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

WELDING POSITIONS (ISO/ASME)

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
Min.	--	--	--	--	--	14.0	3.5	--	1.5
Max.	0.10	1.0	0.8	0.030	0.030	16.5	4.5	0.5	2.5
Typical	0.02	0.7	0.25	0.01	0.01	15	4	0.2	2

ALL-WELD MECHANICAL PROPERTIES

Typical properties PWHT		**Over-aged ***
Tensile strength (MPa)		1035
0.2% proof strength (MPa)		635
Elongation (%)	4d	10
	5d	9
Reduction of area (%)		24
Hardness (HV)		330

* 750°C/2 hours, air cool to 15°C + 550°C/2 hours, air cool.

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

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

PACKAGING DATA

Diameter (mm)	**2.5**	**3.2**	**4.0**
Length (mm)	350	350	450
kg/carton	12.3	15.0	18.6
Pieces/carton	528	345	246

STORAGE

3 hermetically sealed ring-pull metal tins per carton, with unlimited shelf life. Direct use from tin is satisfactory for longer than a working shift of 8h. Excessive exposure of electrodes to humid conditions will cause some moisture pick-up and increase the risk of porosity.
For electrodes that have been exposed:
Redry 300 – 350°C/1-2h to restore to as-packed condition. 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	Ni	Cr	Cu	Mo	V	F	OES (mg/m3)
15	3	0.5	4	0.8	0.2	<0.1	18	1.2