Chromet 5

MMA (SMAW)

5%Cr-1/2Mo CREEP RESISTING STEEL MMA ELECTRODE

PRODUCT DESCRIPTION

Basic metal powder type made on high purity low carbon core wire. Moisture resistant coating gives 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	E8015-B6 H4
ISO 3580-A	E CrMo5 B 3 2 H5
ISO 3580-B	E 6216-5CM

ASME IX QUALIFICATION

QW432	F-No 4
QW442	A-No 5

WELDING POSITIONS (ISO/ASME)

CHEMICAL COMPOSITION (WELD METAL WT %)

	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
min.	0.05	0.50	--	--	--	4.0	--	0.45	--
max.	0.10	1.00	0.80	0.025	0.030	6.0	0.40	0.65	0.3
Typical	0.06	0.8	0.4	0.01	0.015	5	0.2	0.55	0.05

ALL-WELD MECHANICAL PROPERTIES

Properties after PWHT*	Min.	Typical		
		745°C/1h	740°C/2h	745°C/3h
Tensile strength (MPa)	550**	610	610	540
0.2% proof strength (MPa)	460	500	480	360
Elongation (%) 4d	19	25	23	28
5d	18	22	20	25
Reduction of area %	--	69	71	74
Impact ISO-V(J) +20°C	--	150	130	140
-10°C	--	80	50	50
Hardness cap/mid (HV)	--	210/205	210/200	205/160

* PWHT: AWS A5.5 is 740 +/-15°C/1h. ISO 3580-A is 730-760°C/1h

** ISO 3580-A is 590MPa. There are no base material grades requiring such a high tensile strength ASTM is 414-552MPa dependent on grade.

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)	Length (mm)	Item number	No of pieces		Weight (kg)	
				can	box	can	box
METAL CAN	2.5	350	CHROMET5-25	182	546	4.2	12.6
	3.2	350	CHROMET5-32	128	384	4.5	13.5
	4.0	450	CHROMET5-40	87	261	5.8	17.4

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/m³)
15	5	<0.1	1.5	<0.2	<0.1	18	5