RD-16B

LOW HYDROGEN ELECTRODE FOR WELDING 1.25Cr-0.5Mo STEELS SUBJECTED TO SERVICE AT ELEVATED TEMPERATURES UP TO 550 ºC

DATA SHEET NO. 48

SPECIFICATION	AWS A5.5	BS EN ISO 3580B	JIS Z 3223
CLASSIFICATION	E8016-B2	E5516-1CM	DT2316

PRODUCT DESCRIPTION

The design emphasis of the chemically basic flux is engineered to ensure the optimum weld metal properties demanded by the specification are fully met.

The basic flux containing the appropriate alloying elements but minimal iron powder, is extruded onto a high purity ferritic core wire and bound with a blend of silicates that ensure both coating strength and a coating resistant to subsequent moisture absorption.

WELDING FEATURES OF THE ELECTRODE

The chemical nature of the flux together with its controlled coating factor allows the electrode to be used at relatively low amps. This factor together with the fairly fluid but quick freezing slag facilitate vertical up welding including controlled penetration root runs.

Overall the arc is very stable, slag detachability is good, fillet welds are slightly convex and metal recovery is some 98% with respect to weight of the core wire.

APPLICATIONS AND MATERIALS TO BE WELDED

PLATES TO : BS1501: Part 2 Grades 620 and 621
ASTM A387 (pressure vessels) Grades 11 and 12.
FORGINGS TO : BS 1503 Grade 620 and 621
CASTINGS TO : BS 1504 Grade 620 and BS3100 Grade B2.
ASTM A217 WC6, WC11
PIPES TO : BS3604 Grades 620 and 621. ASTM A335 Grades P11 and P12.
ASTM A155 Grades ½Cr and 1¼Cr. A182F11 and F12.
TUBES TO : BS3059 Grade 620, ASTM A199, A200 & A213 Grades T11 & T12.

HEAT AND CREEP RESISTANCE UP TO 550ºC WHEN WELDING.
PRE-HEAT & INTERPASS TEMPERATURES 160ºC MIN AND UP TO 250ºC FOR THICK SECTIONS.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

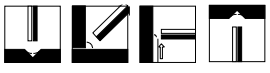
	C	Mn	Si	S	P	Cr	Mo	Fe
MIN	0.05	-	-	-	-	1.00	0.40	
MAX	0.12	0.90	0.6	0.03	0.03	1.50	0.65	
TYPICAL	0.08	0.80	0.3	0.01	0.01	1.25	0.5	Bal.

ALL WELD METAL PROPERTIES (AFTER PWHT : 690 ± 15ºC)

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	550	700	
0.2% Proof stress	N/mm^2	460	550	
Elongation on 4d	%	19	24	H.V. AS WELDED 250
Reduction of Area (RA)	%	-	75	
Impact energy 0 ºC	J	-	70	

WELDING AMPERAGE AC or DC+

Ø (mm)	2.6	3.2	4.0	5.0
MIN	50	75	130	180
MAX	85	125	170	220



OTHER DATA	Electrodes that have become damp should be re-dried at 150ºC for 1 hour
RELATED PRODUCTS	Please contact our Technical Department for detail.