RD-18B

LOW HYDROGEN - IRON POWDER ELECTRODE FOR WELDING 1.25Cr-0.5Mo STEELS OPERATING AT ELEVATED TEMPERATURES UP TO 550 ºC

DATA SHEET NO. 49

SPECIFICATION	AWS A5.5	BS EN ISO 3580B	JIS Z 3223
CLASSIFICATION	E8018-B2	E5518-1CM	DT2318

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 with a controlled balanced addition of iron powder, is extruded onto a high purity ferritic core wire with a blend of silicates that ensures both coating strength and a coating resistant to subsequent moisture absorption.

WELDING FEATURES OF THE ELECTRODE

The chemical nature of the flux together with a significant proportion of iron powder ensures maximum deposition efficiency without detracting from its ability to be used in all positions except vertical down.

Overall the arc is very stable, slag detachability is good and metal recovery is some 115% with respect to 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: BS 3604 Grades 620 and 621. ASTM A335 Grades P11 and P12.
ASTM A155 Grades ½Cr and 1¼Cr. A182F11 and F12.
TUBES TO: BS 3059 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.

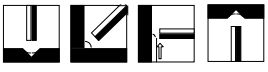
	C	Mn	Si	S	P	Cr	Mo	Fe
MIN	0.05	-	-	-	-	1.00	0.40	
MAX	0.12	0.90	0.8	0.03	0.03	1.50	0.65	
TYPICAL	0.07	0.80	0.3	0.01	0.01	1.25	0.55	Bal.

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

PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS
Tensile strength	N/mm^2	550	715	
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	80	110	140
MAX	90	130	170	180



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.