RD-502

BASIC COATED LOW HYDROGEN ELECTRODE FOR WELDING 5Cr-0.5Mo STEELS IN SERVICE AT ELEVATED TEMPERATURES UP TO 600ºC

DATA SHEET NO. 53

SPECIFICATION	AWS A5.5	BS EN 1599	JIS Z 3223
CLASSIFICATION	E8016-B6	E CrMo5 B	DT2516

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 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: ASTM A537 (pressure vessels).
SECTIONS/BART TO: BS1501 Grade 625
FORGINGS TO: BS1503 Grade 625 ASTM A336 Grade F5.
CASTINGS TO: BS1504 Grade 625 and BS3100 Grade B5. ASTM A217 C5.
PIPES TO: BS3604 Grade HFS625 and CFS 625, ASTM A155 Grade 5Cr and A335 Grades P5 and P5b (high silicon).
TUBES TO: BS3604 Grades HFS 625 and CFS 625, ASTM A199 Grade T5 (refinery service) and A213 Grade T5 and T5b (boiler superheaters).
Preheat & Interpass temperature : 180 - 230ºC.

WELD METAL ANALYSIS COMPOSITION % BY Wt.

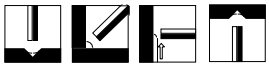
	C	Mn	Si	S	P	Cr	Ni	Mo	Fe
MIN	0.05	-	-	-	-	4.0	-	0.45	
MAX	0.10	1.0	0.9	0.03	0.03	6.0	0.4	0.65	
TYPICAL	0.06	0.5	0.3	0.01	0.01	5.0	0.1	0.55	Bal.

ALL WELD METAL PROPERTIES

PROPERTY	PWHT 750º 1 HOUR MIN	PWHT 750º 1 HOUR TYPICAL	PWHT 750º 2 HOURS TYPICAL	PWHT 750º 3 HOURS TYPICAL
Tensile strength	550	615	610	540
0.2% Proof stress	460	505	480	360
Elongation on 4d	19	26	27	29
Reduction of Area (RA)	-	65	69	75
Impact energy -10ºC	-	75	50	50

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.