


RD-96B3	LOW HYDROGEN - IRON POWDER ELECTRODE FOR WELDING 2.25Cr-1Mo STEELS SUBJECTED TO SERVICE AT ELEVATED TEMPERATURES				DATA SHEET NO. 51				
SPECIFICATION	AWS A5.5	BS EN ISO 3580B		JIS Z 3223					
CLASSIFICATION	E9016-B3	E6216-2C1M		DT2416					
PRODUCT DESCRIPTION	<p>The design emphasis of the chemically basic flux is engineered to ensure the optimum weld metal properties demanded by the specification are fully met.</p> <p>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 silicated that ensures both coating strength and a coating resistant to subsequent moisture absorption.</p>								
WELDING FEATURES OF THE ELECTRODE	<p>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.</p> <p>Overall the arc is very stable, slag detachability is good and metal recovery is some 115% with respect to the core wire.</p>								
APPLICATIONS AND MATERIALS TO BE WELDED	<p>PLATES TO : BS1501:Part 2 Grades 622, ASTM A387 Grade 21 and 22. FORGINGS TO : BS1503 Grade 622 CASTINGS TO : BS1504 Grade 622, BS3100 Grade B3. ASTM A217 WC9. PIPES TO : BS3604 Grades 622, ASTM A335 Grades P22. TUBES TO : BS3059 Grade 622/640 and 622/490. ASTM A199, A200 & A213 Grades T22, T36 & T4. A182 F22. FORGINGS TO : BS1503 Grade 660. [Cr Mo V STEELS] CASTINGS TO : BS1504 Grade 660, BS3100 Grade B7. [Cr Mo V STEELS] PIPES TO : BS3604 Grade 660. [Cr Mo V STEELS]</p> <p>HEAT AND CRERP RESISTANCE UP TO 600°C FOR WELDING. PRE-HEAT & INTERPASS TEMPERATURES 160°C MIN AND UP TO 250°C FOR THICK SECTIONS</p>								
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Mo	Fe
MIN		0.05	-	-	-	-	2.0	0.9	
MAX		0.12	0.9	0.6	0.03	0.03	2.5	1.2	
TYPICAL		0.06	0.8	0.3	0.01	0.01	2.25	1.0	Bal.
ALL WELD METAL PROPERTIES (AFTER PWHT : 690 ± 15°C)	<u>PROPERTY</u>	<u>UNITS</u>	<u>MINIMUM</u>	<u>TYPICAL</u>	<u>OTHERS</u>				
	Tensile strength	N/mm ²	620	700	H.V. AS WELDED E9016-B3 HV300 Mn: Si RATIO <2				
	0.2% Proof stress	N/mm ²	530	620					
	Elongation on 4d	%	17	19					
	Reduction of Area (RA)	%	-	65					
	Impact energy -20°C	J	-	80					
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 150 °C for 1 hour								
RELATED PRODUCTS	Please contact our Technical Department for detail.								