

MANUFACTURERS OF A DIVERSE RANGE OF ADVANCED WELDING CONSUMABLES

SECTION 5

WI-0304 DS45 RD-716A Rev. 2, Date 01.08.2011

RD-716A	BASIC LOW HYDROGEN ELECTRODE FOR WELDING C-Mn-Mo STEELS OPERATING UP TO 450°C							DATA SHEET NO. 45	
SPECIFICATION	AWS A5.5 BS EN ISO 2560-B					JIS Z 3223			
CLASSIFICATION	Е	7016-A1		E49	E4916-1M3			DT 1216	
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.								
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.								
APPLICATIONS AND MATERIALS TO BE WELDED	Nominal 0.5Mo content improves elevated temperature performance of weld metal over C-Mn types operating at 450°C. Materials to be welded include: ASTM A335-P1 A209 and A250-TI BS3059-243-3606-243-245 2U Forged ASTM A336-F1 A204 A, B and C. Cast ASTM A217-WC1 A352-LC1								
WELD METAL ANALYSIS COMPOSITION % BY Wt.	MIN MAX TYPICAL	C - 0.12 0.05	Mn - 0.9 0.8	Si - 0.6 0.4	S - 0.03		P - 0.03 0.01	Mo 0.40 0.65 0.50	Fe Bal.
ALL WELD METAL PROPERTIES	PROPERTY Tensile strength 0.2% Proof stress Elongation on 4d Reduction of Area (RA) Impact energy -30°C		UNITS N/mm² N/mm² % % J	MIN 4	0.4 0.01 MINIMUM 490 390 22		0.01 0 0 0 0	OTHERS PROPERTIES MAINTAINED AFTER PWHT AT 620°C	
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6	3.2		4.0	5.0	5.0		
	MIN MAX	50 85	75 125		130 170	18 22			
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.								