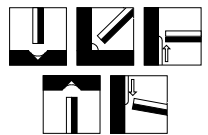


<b>I-10</b>	<b>A FLUX COATED ELECTRODE FOR STRUCTURAL STEELS BASED ON ILLMENITE BALANCED WITH AMPHOTERIC MINERALS, THAT OFFERS SIGNIFICANT ADVANTAGES OVER CONVENTIONAL TYPES WHEN THICKER STEEL SECTIONS ARE INVOLVED</b>				<b>DATA SHEET NO. 11</b>						
SPECIFICATION	AWS A5.1	BS EN ISO 2560-B	JIS Z 3211								
CLASSIFICATION	E6019	E4319	D4301								
PRODUCT DESCRIPTION	The combination of illmenite and amphoteric minerals are balanced to produce a highly viscous slag ideal for vertical up techniques when a heavy weld deposit is needed and also overhead welding. The flux containing alloying and deoxidising ferro alloys is extruded onto a mild steel core wire using a blend of potassium rich silicates that ensures both coating strength and a coating resistant to subsequent moisture absorption.										
WELDING FEATURES OF THE ELECTRODE	Arc stability is excellent both AC and DC. Weld seams are smooth and evenly rippled and fillet welds are slightly convex. Slag detachability is also very good. The physical soundness of the welds are excellent with reference to x-ray quality as its resistance to solidification cracking on relatively thick steel sections. Metal recovery is some 95% with respect to weight of core wire.										
APPLICATIONS AND MATERIALS TO BE WELDED	All positional welding of structural steels, particularly using vertical up and overhead techniques for the following and related steel specifications: Mild and medium carbon-manganese steels up to 15mm thick (under several circumstances can be use up to 25 mm thickness) with a UTS of 500N/mm <sup>2</sup> max. Typical grades : BS1449 plate and sheet, BS 4360 grades 43A and 43C, Lloyds A & D ship steel BS 4360 grade 50B Lloyds grades AH and DH, BS 3059 and BS 3601 grade 320-410 API 5L A-B and X42.										
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	V	Fe
	MIN	-	-	-	-	-	-	-	-	-	
	MAX	0.2	1.20	1.0	-	-	0.2	0.3	0.3	0.08	
	TYPICAL	0.08	0.55	0.1	0.02	0.02	0.1	0.1	0.1	0.01	Bal.
WELD METAL PROPERTIES (ALL WELD METAL)	<u>PROPERTY</u>		<u>UNITS</u>	<u>MINIMUM</u>	<u>TYPICAL</u>	<u>OTHERS</u>					
	Tensile strength		N/mm <sup>2</sup>	430	480						
	0.2% Proof stress		N/mm <sup>2</sup>	330	420						
	Elongation on 4d		%	22	28						
	Reduction of Area (RA)		%	-	75						
Impact energy -20°C		J	27	60							
WELDING AMPERAGE AC or DC	Ø (mm)	2.6	3.2	4.0	5.0						
	MIN	70	90	130	160						
	MAX	120	150	190	250						
OTHER DATA	Electrodes that have become damp should be re-dried at 110°C for 1 hour.										
APPROVED BY	ABS; BV; BKI – Grade 2										