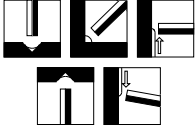


RD-360	BASIC LOW HYDROGEN ELECTRODE FOR WELDING STRUCTURAL STEELS EITHER ON SITE OR WORKSHOP FABRICATION				DATA SHEET NO. 18																																													
SPECIFICATION	AWS A5.1	BS EN ISO 2560-B		JIS Z 3212																																														
CLASSIFICATION	E7016	E4916		D5016																																														
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 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.</p>																																																	
WELDING FEATURES OF THE ELECTRODE	<p>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.</p> <p>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.</p>																																																	
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Medium and high tensile carbon-manganese steels with UTS of up to 510N/mm² max. Typical grades : BS 1449 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, BS 4360-50B-50C-50D, BS 1501-151 430-490, BS 3602-410-460.</p> <p>Such steels are used in ship construction, bridge building and pressure vessel work as well as general construction work.</p>																																																	
WELD METAL ANALYSIS COMPOSITION % BY Wt.	<table border="1"> <thead> <tr> <th></th> <th>C</th> <th>Mn</th> <th>Si</th> <th>S</th> <th>P</th> <th>Cr</th> <th>Ni</th> <th>Mo</th> <th>V</th> <th>Fe</th> </tr> </thead> <tbody> <tr> <td>MIN</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>MAX</td> <td>0.15</td> <td>1.6</td> <td>0.75</td> <td>0.035</td> <td>0.035</td> <td>0.20</td> <td>0.30</td> <td>0.30</td> <td>0.08</td> <td></td> </tr> <tr> <td>TYPICAL</td> <td>0.1</td> <td>1.0</td> <td>0.35</td> <td>0.01</td> <td>0.01</td> <td>0.14</td> <td>0.03</td> <td>0.01</td> <td>0.01</td> <td>Bal.</td> </tr> </tbody> </table>							C	Mn	Si	S	P	Cr	Ni	Mo	V	Fe	MIN	-	-	-	-	-	-	-	-	-	-	MAX	0.15	1.6	0.75	0.035	0.035	0.20	0.30	0.30	0.08		TYPICAL	0.1	1.0	0.35	0.01	0.01	0.14	0.03	0.01	0.01	Bal.
	C	Mn	Si	S	P	Cr	Ni	Mo	V	Fe																																								
MIN	-	-	-	-	-	-	-	-	-	-																																								
MAX	0.15	1.6	0.75	0.035	0.035	0.20	0.30	0.30	0.08																																									
TYPICAL	0.1	1.0	0.35	0.01	0.01	0.14	0.03	0.01	0.01	Bal.																																								
WELD METAL PROPERTIES (ALL WELD METAL)	<table border="1"> <thead> <tr> <th>PROPERTY</th> <th>UNITS</th> <th>MINIMUM</th> <th>TYPICAL</th> <th>OTHERS</th> </tr> </thead> <tbody> <tr> <td>Tensile strength</td> <td>N/mm²</td> <td>490</td> <td>700</td> <td></td> </tr> <tr> <td>0.2% Proof stress</td> <td>N/mm²</td> <td>400</td> <td>660</td> <td></td> </tr> <tr> <td>Elongation on 4d</td> <td>%</td> <td>22</td> <td>25</td> <td></td> </tr> <tr> <td>Reduction of Area (RA)</td> <td>%</td> <td>-</td> <td>70</td> <td></td> </tr> <tr> <td>Impact energy -30°C</td> <td>J</td> <td>27</td> <td>100</td> <td></td> </tr> </tbody> </table>						PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS	Tensile strength	N/mm ²	490	700		0.2% Proof stress	N/mm ²	400	660		Elongation on 4d	%	22	25		Reduction of Area (RA)	%	-	70		Impact energy -30°C	J	27	100															
PROPERTY	UNITS	MINIMUM	TYPICAL	OTHERS																																														
Tensile strength	N/mm ²	490	700																																															
0.2% Proof stress	N/mm ²	400	660																																															
Elongation on 4d	%	22	25																																															
Reduction of Area (RA)	%	-	70																																															
Impact energy -30°C	J	27	100																																															
WELDING AMPERAGE AC or DC+	<table border="1"> <thead> <tr> <th>Ø (mm)</th> <th>2.6</th> <th>3.2</th> <th>4.0</th> <th>5.0</th> </tr> </thead> <tbody> <tr> <td>MIN</td> <td>50</td> <td>75</td> <td>130</td> <td>180</td> </tr> <tr> <td>MAX</td> <td>85</td> <td>125</td> <td>170</td> <td>220</td> </tr> </tbody> </table>				Ø (mm)	2.6	3.2	4.0	5.0	MIN	50	75	130	180	MAX	85	125	170	220																															
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.																																																	
APPROVED BY	LR – Grade 3Y																																																	