



**MANUFACTURERS OF A DIVERSE RANGE OF  
ADVANCED WELDING CONSUMABLES**

**SECTION  
4**

WI-0304 DS28 RD-716G Rev. 5, Date 01.11.2013

<b>RD-716G</b>	<b>LOW HYDROGEN ELECTRODE WITH GOOD TOUGHNESS AT -50 °C</b>				<b>DATA SHEET NO. 28</b>																																					
SPECIFICATION	AWS A5.5																																									
CLASSIFICATION	E7016-G																																									
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> <p align="center"><b>UNCONTROLLED</b></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><b>PRESSURE VESSEL STEELS</b></p> <p>PLATES All grades up to BS 1501-225</p> <p>FORGINGS All grades up to BS 1503-224</p> <p>PIPES LT50 quality of grade 410 in BS 3603:1977</p> <p>Such steels and similar are used for the fabrication of LPG tankers and storage vessels.</p> <p>The 1% nickel max meets NACE MR0175 requirements for corrosion resistance in marine environments.</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>Ni</th> <th>Cr</th> <th>Fe</th> </tr> </thead> <tbody> <tr> <td>MIN *</td> <td>-</td> <td>1.0</td> <td>-</td> <td>-</td> <td>-</td> <td>0.6</td> <td>-</td> <td></td> </tr> <tr> <td>MAX</td> <td>0.12</td> <td>1.75</td> <td>0.5</td> <td>0.025</td> <td>0.025</td> <td>1.1</td> <td>0.5</td> <td></td> </tr> <tr> <td>TYPICAL</td> <td>0.08</td> <td>1.2</td> <td>0.3</td> <td>0.01</td> <td>0.01</td> <td>0.9</td> <td>0.3</td> <td>Bal.</td> </tr> </tbody> </table> <p><small>* Undiluted weld metal shall have the minimum of at least one of the element specified on AWS A5.5-2006</small></p>							C	Mn	Si	S	P	Ni	Cr	Fe	MIN *	-	1.0	-	-	-	0.6	-		MAX	0.12	1.75	0.5	0.025	0.025	1.1	0.5		TYPICAL	0.08	1.2	0.3	0.01	0.01	0.9	0.3	Bal.
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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.																																									
APPROVED BY	LR – Grade 4Y H5																																									