


NCM-276	A CHEMICALLY BASIC FLUX COATED MMA ELECTRODE DEPOSITING A NICKEL BASED ALLOY HIGH IN BOTH CHROMIUM AND MOLYBDENUM			DATA SHEET NO. 91																																																									
SPECIFICATION	AWS A5.11	BS EN ISO 14172	JIS Z 3224																																																										
CLASSIFICATION	ENiCrMo-4	E Ni 6276	DNiCrMo-4																																																										
PRODUCT DESCRIPTION	<p>The chemically basic flux is extruded onto a high purity nickel chromium core wire. The flux contains the remaining alloying elements together with alloys for deoxidation and grain refinement.</p> <p>The blend of silicates used during electrode production ensure both coating strength and resistance to subsequent moisture absorption.</p>																																																												
WELDING FEATURES OF THE ELECTRODE	<p>The electrode is suitable for use on both AC and DC+ and welds with great arc stability and thus control of the molten weld pool. Slag detachability is good.</p> <p>The weld beads are bright and evenly rippled with fillet welds slightly convex.</p> <p>Strike and re-strike should be made with the established back step technique.</p>																																																												
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Used for welding NiCrMo alloys of the following specifications: ASTM UNS N10276 A494 CW - 12HW A743/A744 CW - 12Mn</p> <p>Proprietary Alloys: HASTELOY ALLOY C276 (Haynes). INCO-ALLOY C276 (special metals). NiCroFer 571h Mo W (VDM)</p>																																																												
WELD METAL ANALYSIS COMPOSITION % BY Wt.	<table border="1"> <thead> <tr> <th></th> <th>C</th> <th>Mn</th> <th>Fe</th> <th>Si</th> <th>S</th> <th>P</th> <th>Cr</th> <th>Co</th> <th>Ni</th> <th>Cu</th> <th>Mo</th> <th>W</th> <th>V</th> </tr> </thead> <tbody> <tr> <td>MIN</td> <td>-</td> <td>-</td> <td>4.0</td> <td>-</td> <td>-</td> <td>-</td> <td>14.5</td> <td>-</td> <td>Bal</td> <td>-</td> <td>15</td> <td>3.0</td> <td>-</td> </tr> <tr> <td>MAX</td> <td>0.02</td> <td>1.0</td> <td>7.0</td> <td>0.2</td> <td>0.03</td> <td>0.04</td> <td>16.5</td> <td>2.5</td> <td>-</td> <td>0.5</td> <td>17</td> <td>4.5</td> <td>0.35</td> </tr> <tr> <td>TYPICAL</td> <td>0.015</td> <td>0.4</td> <td>5.5</td> <td>0.15</td> <td>0.01</td> <td>0.02</td> <td>15.5</td> <td>2.3</td> <td>58</td> <td>0.2</td> <td>16</td> <td>4.0</td> <td>0.1</td> </tr> </tbody> </table>						C	Mn	Fe	Si	S	P	Cr	Co	Ni	Cu	Mo	W	V	MIN	-	-	4.0	-	-	-	14.5	-	Bal	-	15	3.0	-	MAX	0.02	1.0	7.0	0.2	0.03	0.04	16.5	2.5	-	0.5	17	4.5	0.35	TYPICAL	0.015	0.4	5.5	0.15	0.01	0.02	15.5	2.3	58	0.2	16	4.0	0.1
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WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY		UNITS	MINIMUM	TYPICAL	OTHERS																																																							
	Tensile strength		N/mm ²	690	730	HV 230 – 250																																																							
	0.2% Proof stress		N/mm ²	-	550																																																								
	Elongation on 4d		%	25	29	WILL WORK																																																							
	Reduction of Area (RA)		%	-	25	HARDEN TO																																																							
	Impact energy -50 °C		J	-	65	HV 450																																																							
WELDING AMPERAGE DCEP	Ø (mm)	2.6 3.2		4.0																																																									
	MIN	60	90	130																																																									
	MAX	100	130	180																																																									
OTHER DATA	Electrodes that have become damp should be re-dried at 180 °C for 1 hour.																																																												
RELATED PRODUCTS	Please contact our Technical Department for detail.																																																												