


<b>NS-18.15.3 LMnR</b>	<b>RUTILE FLUX COATED ELECTRODE          WITH VERY LOW LEVELS OF SILICIOUS          MINERALS THAT DEPOSITS A FERRITE-FREE          AUSTENITIC WELD METAL</b>				<b>DATA SHEET          NO.          99</b>					
SPECIFICATION	BS EN 1600									
CLASSIFICATION	E 18 15 3 L R									
PRODUCT DESCRIPTION	<p>Manufactured on a near matching alloy core wire, the rutile low silicious flux has a significant level of chemically basic chemicals that ensures a high purity weld metal with a refined microstructure.</p> <p>The flux is extruded on to the core wire using a blend of silicates that ensures both coating strength and a coating resistant to subsequent moisture absorption.</p>									
WELDING FEATURES OF THE ELECTRODE	<p>The electrode performs best on DC+ but may be used AC. The arc is stable but should be used with a short arc technique rather than contact welding. The medium viscous slag is readily detachable even in deep V's.</p> <p>Vertical up welding is possible with 3.2mm diameter electrodes. Fillet welds have a convex profile.</p>									
APPLICATIONS AND MATERIALS TO BE WELDED	<p>For welding stainless steels when totally non-magnetic weld metal is required (mainly military applications).</p> <p>Also for welding:          Stainless steels when good toughness is required down to and lower than -196°C.          Modified 316L stainless steel as it has excellent resistance to corrosion against concentrated nitric acids and may be used to clad C-Mn steels to provide corrosion resistant overlays.</p>									
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	N
	MIN	-	1.0	-	-	-	16.5	14	2.5	0.10
	MAX	0.04	4.0	1.2	0.025	0.03	19.5	17	3.5	0.20
	TYPICAL	0.02	3.0	0.4	0.01	0.02	17.5	16	3.0	0.15
WELD METAL PROPERTIES (ALL WELD METAL)	PROPERTY		UNITS	MINIMUM	TYPICAL	OTHERS				
	Tensile strength		N/mm <sup>2</sup>	480	620	LATERAL EXPANSION AT -196°C 0.75 mm				
	0.2% Proof stress		N/mm <sup>2</sup>	-	430					
	Elongation on 4d		%	-	35					
	Reduction of Area (RA)		%	-	50					
Impact energy -196°C		J	-	65						
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6	3.2	4.0	5.0					
	MIN	60	75	100	140					
	MAX	90	120	160	220					
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.									