

<b>NS-253</b>	<b>SPECIAL RUTILE FLUX CONTAINING A HIGH LEVEL OF HIGH PURITY SILICIOUS MINERALS AND RARE EARTH ELEMENTS THAT DEPOSITS A NOMINAL 22Cr-10Ni WELD METAL WITH EXCELLENT CORROSION RESISTANCE</b>				<b>DATA SHEET NO. 101</b>							
SPECIFICATION	-											
CLASSIFICATION	UNCONTROLLED											
PRODUCT DESCRIPTION	<p>Manufactured on an austenitic core wire of matching composition, the specially modified rutile flux has been metallurgically modified to ensure controlled levels of C-Si-N<sub>2</sub>.</p> <p>The blend of silicates used during extrusion ensures both coating strength and a coating resistant to subsequent moisture absorption.</p>											
WELDING FEATURES OF THE ELECTRODE	<p>Suitable for use on both AC and DC. Welds with a very stable, directional but low penetrating arc. Weld beads are exceptionally smooth and evenly rippled. Slag is normally self detaching and fillet welds slightly concave.</p> <p>The slag is fairly fluid allowing full control of run-out length and the smaller diameters are suited for positional welding.</p>											
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Intended / designed to weld similarly alloyed materials when both strength and resistance to oxidation is required up to 1100 °C.</p> <p>Such wrought alloys are covered under ASTM / UNS S30815 and EN10095 1.4835 (21-11-2).</p> <p>Proprietary alloys include AVESTA 253MA and the similarly alloyed AVESTA 153MA as covered by ASTM UNS S30415.</p> <p>Applications include furnace parts, high temperature flues, exhausts, combustion nozzles, etc.</p>											
WELD METAL ANALYSIS COMPOSITION % BY Wt.		C	Mn	Si	S	P	Cr	Ni	Mo	N	Cu	FN
	MIN	-	0.5	1.4	-	-	18	9.0	-	-	-	3
	MAX	0.08	1.5	2.0	0.03	0.04	22	11	0.75	0.20	0.75	10
	TYPICAL	0.02	1.0	1.5	0.01	0.02	21	10	0.5	0.14	0.1	5
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>	-	670							
	Elongation on 4d		%	-	50							
	Reduction of Area (RA)		%	-	60							
	Impact energy 0°C		J	-	70							
WELDING AMPERAGE AC or DC+	Ø (mm)	2.6		3.2		4.0						
	MIN	60		110		110						
	MAX	100		140		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.											

