


<b>BRONZE-PHOS</b>	<b>A SPECIAL ELECTRODE THAT DEPOSITS A COPPER BASE ALLOY HIGH IN TIN AND PHOSPHOROUS</b>				<b>DATA SHEET NO. 151</b>			
SPECIFICATION	AWS A5.6			JIS Z 3231				
CLASSIFICATION	ECuSn-C			DCuSn-B				
PRODUCT DESCRIPTION	<p>A chemically basic flux coated electrode that deposits a classic tin bronze weld metal. An alloy often referred to as <i>phospor-bronze</i>.</p> <p>The flux is extruded onto a fully alloyed core wire with a blend of silicates that ensure both coating strength and flux resistance to moisture absorption.</p>							
WELDING FEATURES OF THE ELECTRODE	<p>The electrode can be used both AC and DC.</p> <p>The arc action is soft with a gentle pulsating action that ensures minimum penetration. Resistance to porosity is excellent provided the back-step strike technique is used. The slag is dark and fairly viscous and weld seams are convex.</p> <p>Weld metal appearance is a dull yellow colour or bronzy.</p>							
APPLICATIONS AND MATERIALS TO BE WELDED	<p>Intended as a maintenance basis for the repair in situ of tin bronze casting, particularly surface discontinuities, a pre-heat of some 300 °C plus being advisable.</p> <p>The use of the electrode may also be extended to welding bronze to both ferritic and austenitic steels. The alloy itself may, in certain circumstances, be used to repair bronze bearing or to build up worn steel bearings.</p>							
WELD METAL ANALYSIS COMPOSITION % BY Wt.		Fe	Pb	Al	P	Sn	Cu	Others
	MIN	-	-	-	0.05	7.0		-
	MAX	0.25	0.02	0.01	0.35	9.0		0.5
	TYPICAL	0.1	0.01	0.001	0.1	8.0	Bal.	0.1
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>	280	320				
	0.2% Proof stress	N/mm <sup>2</sup>	-	180				
	Elongation on 4d	%	20	22				
	Reduction of Area (RA)	%	-	25				
WELDING AMPERAGE AC or DC	∅ (mm)	2.6	3.2	4.0				
	MIN	60	80	100				
	MAX	90	120	145				
OTHER DATA	Electrodes that have become damp should be re-dried at 80°C for 30 minutes.							
RELATED PRODUCTS	Please contact our Technical Department for detail.							