
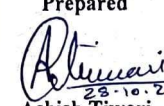


 <p>PRODUCT STANDARD TME DIVISION, BHOPAL</p>	<p>TM 97243</p> <p>PAGE 01 OF 02</p>			
TME/2011						
<p>COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way detrimental to the interest of the company</p>		<p align="center"><u>Material Specification for oxygen-free Rotor Bar</u></p> <p>1. General :</p> <p>1.1 The material must comply with the chemical Composition, mechanical and physical properties in line with Copper UNS No C10100 as per ASTM B187 (Temper designation : Half hard – H02).</p> <p>1.2 The packaging (Semi-finished product) and the dimensions as well as other delivery conditions are mentioned in the order.</p> <p>2. Requirements</p> <p>2.1 Chemical composition :</p> <p>Copper(Cu) – min 99.99%</p> <p>Oxygen - max 5 ppm</p> <p>Other impurities shall be as per ASTM B187 (UNS No. C10100)</p> <p>2.2 Mechanical Properties :</p> <p>1. Tensile Strength : 260 to 345 N/mm²</p> <p>2. Elongation at break(A5) min : 10%</p> <p>3. Rockwell Hardness(RH) : min 80</p> <p>4. Electrical resistivity at 20 deg C : 0.15585 ohm g/m²</p> <p>5. Temper designation : Half hard – H02</p> <p>2.3 Further Requirements</p> <p>2.3.1 The material shall be supplied in finished condition as per drawing/order.</p> <p>2.3.2 The test shall be conducted as per ASTM B187.</p> <p>2.3.3 1% of the offered quantity to be subjected to radiography/Ultrasonic test from any independent government/NABL approved laboratory and report shall be provided by vendor to BHEL.</p>				
		Revision: 05	Distribution	Qty.	Approved : 	
		Date: 28-10-2022	TXM TME	1 1	Prepared  Ashish Tiwari	Checked  Kunal Dugvekar

		 <p>PRODUCT STANDARD TME DIVISION, BHOPAL</p> <p>TME/2011</p>	<p>TM 97243</p> <p>PAGE 02 OF 02</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">COPYRIGHT AND CONFIDENTIAL</p> <p>The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED It must not be used directly or indirectly in any way detrimental to the interest of the company</p>		<p>2.4 Packing</p> <p>The individual shipments are to be packed so that no damage can arise during transport.</p> <p>2.5 Transport</p> <p>The shipment is to be made by rail or road transport in such a way that it can be unloaded easily.</p> <p>2.6 Identification</p> <p>The material shall be labeled securely and indelibly(e.g. with an adhesive label on an appendage) with the following information.</p> <ol style="list-style-type: none"> 1. The name of the manufacturer, purchase order reference and date. 2. Item, size, quantity, batch no, date of manufacturing by indicating MM/YY. 3. Special precaution for storage, if applicable for the material. <p>3.0 Test Method for Rotor bar</p> <p>3.1 Chemical composition : Raw material for rotor bar should be as per ASTM B187, UNS No C10100 , Half hard – H02.</p> <p>3.2 Tensile strength, Elongation at break, Rockwell Hardness, Electrical resistivity.</p> <ol style="list-style-type: none"> 1. Tensile strength and elongation should be tested as per IS:1608 Part 1. 2. Mass resistivity should be derived from the test results as per IS:613. 3. The hardness should be measured in Rockwell hardness scale HRF. (If required conversion to other hardness scale to be done using ASTM E140-12B) <p>3.3 Dimensional Test : All dimensions will have to be checked as per drawing dimension.</p>	