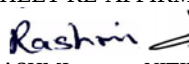
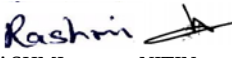


RFF	COMP. dng	 उत्पाद मानक परिणामित्र शाप/अभि. निर्देश	PRODUCT STANDARD TRANSFORMER SHOP/ENGG INSTRUCTIONS		TR10133I	
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COPYRIGHT AND CONFIDENTIAL The Information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED. It must not be used directly or indirectly in any way detrimental to the interest of the Company.		TITLE: <u>INSTRUCTIONS FOR TRANSPORTATION & STORAGE OF EPOXY COATED PAPER INSULATED COPPER CONDUCTOR (PICC)</u>				
		1. <u>GENERAL :</u> THIS INSTRUCTION COVERS SPECIAL ACTIONS REQUIRED FOR THE MANUFACTURE, TRANSPORT FROM MANUFACTURER'S WORKS OF MUMBAI CLEARANCE OF SEMI-CURED EPOXY BONDED PICC & CTC AT MUMBAI PORT, TRANSPORT FROM MUMBAI TO BHOPAL & STORAGE AT BHOPAL. THE CONDUCTOR HAS A LIMITED SHELF LIFE & COILS ARE REQUIRED TO BE MANUFACTURED WELL BEFORE RESIN GETS CURED. AFTER THE EXPIRY OF SHELF LIFE, RESIN WILL BE FULLY CURED & CONDUCTORS WOULD BECOME UNUSABLE FOR THE INTENDED PURPOSE OF TRANSFORMER COIL MANUFACTURING. 2. <u>SHELF LIFE :</u> THE NORMAL SHELF LIFE OF GLUED STRIP USED IN THESE CONDUCTORS (GPICC) WITH REFERENCE TO TEMPERATURE FROM THE DATE OF MANUFACTURE OF THE CONDUCTOR IS AS UNDER : 12 MONTHS WHEN EXPOSED TO A TEMP OF + 10°C 6 MONTHS WHEN EXPOSED TO A TEMP OF + 20°C 3 MONTHS WHEN EXPOSED TO A TEMP OF + 30°C 1 ½ MONTHS WHEN EXPOSED TO A TEMP OF + 40°C HOWEVER FOR EPOXY COATED CTC THE NORMAL SHELF LIFE SHALL BE 1 YEAR AT 20°C & NO SPECIAL STORAGE / TRANSPORT INSTRUCTIONS REQD. IF THE TEMPERATURE IS WITHIN 35°C FOR 1 YEAR. FOR OTHER TEMPERATURES, PROPORTIONAL TIME MAY BE TAKEN. HOWEVER, IN THE PRACTICAL SITUATION, CONDUCTORS WILL BE EXPOSED TO DIFFERENT TEMPS FOR DIFFERENT PERIODS FROM MANUFACTURER'S WORKS TILL COILS ARE MADE IN BHEL, BHOPAL. HENCE NO PRECISE CALCULATIONS ARE POSSIBLE TO KNOW THE EXACT EXPIRY TIME. SPECIAL CARE HAS TO BE TAKEN TO COMPLETE DIFFERENT ACTIVITIES EXPLAINED BELOW AS EARLY AS POSSIBLE. 3. <u>TRANSPORT FROM MANUFACTURER'S WORKS TO MUMBAI</u> THE CONDUCTOR SHALL NOT BE MANUFACTURED EARLIER THAN 30 DAYS FROM THE DATE OF DESPATCH FROM THE MANUFACTURER'S WORKS. THE MANUFACTURER WILL ENSURE THAT COPPER CONDUCTORS PACKED IN SEAWORTHY CONTAINER/CRATE ARE LOADED IN TO THE SHIP AS EARLY AS POSSIBLE BUT NOT LATER THAN 15 DAYS FROM THE COMPLETION OF THE MANUFACTURE OF CONDUCTORS/CABLES.				
पुन:Rev 04 दि:Date 04/01/10		SHEET REAFFIRMED ARVIND S.K.G A DEOTA		वितरण DISTRIBUTION		सं स्वीकृत किया : APPROVED : Sd / BSB , sd/MPS
पुन:Rev 05 दि:Date 20/11/17		SHEET RE-AFFIRMED.  RASHMI NITIN A.DEOTA		तैयार किया PREPD. Sd/-AKG		
						दिनांक DATE 25.02.91

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COPYRIGHT AND CONFIDENTIAL 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.		4. <u>CUSTOM CLEARANCE AT MUMBAI PORT :</u> DGM (MATERIAL SERVICES) BHEL ROD MUMBAI OR HIS REPRESENTATIVE SHALL CLOSELY MONITOR SHIP BERTHING AT MUMBAI PORT & SHALL ENSURE THAT ALL THE REQD. DOCUMENTS & PAPER WORK REQD. FOR CUSTOMS CLEARANCE ARE AVAILABLE IN ADVANCE. THE MATERIAL WILL BE DISPATCHED TO BHOPAL AS EARLY AS POSSIBLE BUT NOT LATER THAN 7 DAYS (INCLUDING HOLIDAYS IF ANY) AFTER THE SHIP IS BERTHED. CONDUCTOR SHALL BE DESPATCHED FROM MUMBAI PORT TO BHOPAL IN AIR CONDITIONED CONTAINER & ITS TEMPERATURE TO BE MONITORED. THIS IS TO BE ENSURED BY MATERIAL MANAGEMENT DEPARTMENT, BHOPAL. 5. <u>STORAGE AT BHOPAL :</u> IMMEDIATELY AFTER ARRIVAL OF TRUCK AT BHEL BHOPAL, THE CONDUCTORS SHALL BE KEPT IN REFRIGERATED CONTAINER WHERE MAX. TEMPERATURE SHALL BE 8°C SR. MANAGER(PROD.) TRM OR HIS REPRESENTATIVE WILL COORDINATE WITH ALL THE CONCERNED DEPARTMENTS SO THAT MATERIAL IS KEPT IN THE REFRIGERATED CONTAINER WITHIN 24 HOURS OF ARRIVAL AT BHEL GATE. SAMPLE FOR LABORATORY TEST & PHYSICAL CHECKS SHALL BE DRAWN AFTER CONDUCTORS ARE KEPT IN COOLED CONTAINER. THE TEMPERATURE OF THE CONTAINER IS TO BE REGULARLY MONITORED ON HOURLY BASIS. RELATIVE HUMIDITY OF THE CONTAINER TO BE KEPT AT AROUND 60%. 6. IN CASE THE SHELF LIFE HAS BEEN CONSUMER BEFORE THE MANUFACTURE & CURING OF WINDINGS THEN BEFORE START OF WINDING THE GLUING PROPERTIES OF THE CONDUCTOR IS TO BE CHECKED BY TAKING 3 SAMPLES FROM EACH DRUM AS PER DOCUMENT NO. TR102481 & FURTHER PUT TO USE ONLY AFTER PROPER GLUING PROPERTY IS ENSURED. DESIGN DEPT. SHALL GIVE THE FINAL RECOMMENDATION FOR USABILITY. 7. <u>COIL MANUFACTURE :</u> THE FOLLOWING EXPOSURE TIME LIMIT SHALL BE ADHERED TO FROM THE DAY OF TAKING OUT CONDUCTOR FROM REFRIGERATED CONTAINER TILL THE DAY THE COIL IS MANUFACTURED (INCLUDING HOLIDAYS) # 8 WEEKS WHEN SHOP TEMP. IS 25°C MAX. # 4 WEEKS WHEN SHOP TEMP. EXCEEDS 25°C BUT IS BELOW 40°C (IN NO CASE TEMP. NEAR WINDING SHALL EXCEED 40°C). 8. <u>INSURANCE :</u> THE CONDUCTOR SUPPLIER AND/OR BHEL SHALL ALSO ENSURE THE GOODS AGAINST DAMAGE DUE TO CURING OF CONDUCTORS BECAUSE OF UNDUE DELAY IN VARIOUS ACTIVITIES INDICATED ABOVE DUE TO ANY UNFORESEEN CIRCUMSTANCES APART FROM THE NORMAL INSURANCE E.G. SHIP TRANSPORT TIME BEING ABNORMAL.						
		TR10133I PAGE 2 OF 2						
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