



# **BHARAT HEAVY ELECTRICALS LIMITED, BHOPAL**

## **QUALITY ASSURANCE PLAN FOR RESISTANCE RING TO BHEL ORDERING SPECIFICATION/DRAWING AS PER PO**

QUALITY PLAN NO. – QAP/QTM/VENDOR QAP/2021-22/RESISTANCE RING REV 02 DTD 26.08.2022  
Reference Document- PO DRAWING/SPECIFICATION

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SL. NO	COMPONENT	CHARACTERISTICS	TYPE OF CHECK	QUANTAM OF CHECK		REFERENCE DOCUMENT	ACCEPTANCE NORMS	FORMAT OF RECORD	INSPECTION AGENCY	REMARKS
				TP	TP/A					
1)	Raw material	a) Chemical properties b) Specific gravity c) Oxygen content	TC verification	100% (VR)	100% (VR)	As per specification	As per specification	MTC	BHEL/TP/A	SOURCES MENTIONED IN SPECIFICATION. RAW MATERIAL TC to be co-related to finished material and to be verified by TP/A
2)	Dimension	Dimension	Measurement	20%	5% (w)	As per drawing & specification	As per drawing & Specification	Supplier record	BHEL/TP/A	All reports to be submitted to BHEL
3)	Visual check	Free from any piping, crow feet, indentations, foreign particles or inclusion, surface defect, Twists & entanglements	Visual	100%	5% (w)	As per drawing & specification	As per drawing & specification	Supplier record	BHEL/TP/A	

Prepared By

Approved By

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4)	Testing on finished bar	Chemical properties	Testing	one sample per lot At NABL lab	RR	As per specification	As per specification	Supplier record	BHEL/TPIA	NABL LAB tested TC to be verified and co-related by TPJA and submitted to BHEL
		a) Cu + Ag b) ZR c) oxygen content								
		Mechanical properties a) Tensile strength b) Yield strength c) Elongation d) Hardness	Testing	one sample per lot At NABL lab	RR	As per specification	As per specification	Supplier record	BHEL/TPIA	
		Electrical properties a) Electrical Conductivity	Testing	One sample per lot at NABL LAB & 100 % by supplier	100 % RR & 1% witness	As per specification	As per specification	Supplier record	BHEL/TPIA	
		NDT testing: 2) ultrasonic testing/Eddy current testing	Testing	10 % per lot at NABL lab OR government approved LEVEL II operator at vendor works	1% witness	As per specification	As per specification	Supplier record	BHEL/TPJA	NABL LAB tested TC to be verified and co-related by TPJA and submitted to BHEL

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5)	Identification vendor name, PO & job serial no., Hardware fitment	Visual	Visual	100%	10% witness	As per drawing & specification	As per drawing & Specification	Supplier record	BHEL/PIA	Witness
6)	Packing to avoid transit damage	Visual	Visual	100%	20%	As per drawing & specification	As per drawing & specification	Packing list for each kit box	BHEL/PIA	Packing to be such that no damages should occur during transit. 1 kit items should be placed in on 1 box

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