

	MANUFACTURERS	Customer	Vendor's	Item:	MQP No :006	Valid	15.01.2016
	DETAILS		Code			From:	13.01.2010
		]				· · · · ·	
				1.1 KV GRADE PVC	Rev. No. 00	Valid	Till Revision
		BSPTCL		POWER CABLE		Upto:	
							~
					Date 02.01.2016	Page of: 1 of	25
	Indicates place where testin						
Code 1	performed i.e. Inspection Loc	cation		Code 2	Indicate who has to perform the tes	sts i.e. Testing Agency	
					The Equipment		
A	At Equipment Manufacturer's	s works		J	Manufacturer		
_					The Component		
В	At Component Manufacturer			K	Manufacturer		
С	At Authorised Distributor's pl	ace			The Third Party		
D	At Independent Lab			M	The Turnkey Contractor		
E	At Turn Key Contractor's loca	ation					
F	Not specified						
	Indicates place who shall w	itness tests i.e. Witr	nessing		Review of Test		
Code 3	Agency			Code 4	Reports/Certificates		
				W	By Equipment manufacturer		
Р	Component Manufacturer its						
Q	Component Manufacturer an			Х	By Contractor during product/process	s inspection	
	Component Manufacturer, E	quipment Manufactu	rer and				
R	Contractor			Y	BY BSPTCL during product/process i		
					By Contractor and/or BSPTCL during	product/process	
S	Equipment Manufacturer itse			Z	inspection.		
Т	Equipment Manufacturer and						
U	Equipment Manufacturer, Co	ontractor and BSPTC	L				
V	Third Party itself						
	Whether specific approval of	sub-vendor / Comp	onent		Whether test records required to be s	submitted after final inspection	1
Code 5	make is envisaged?	I		Code 6	for issuance of Dispatch Instructions/		
Е	Envisaged			Y	Yes		
Ν	Not Envisaged			N	No		



#### MANUFACTURING QUALITY PLAN -- PVC POWER CABLE

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MANUFACTURERS	Customer	Vendor's	Item:	MQP No :006	Valid	15.01.2016
DETAILS		Code			From:	1010112010
			1.1 KV GRADE PVC	Rev. No. 00	Valid	Till Revision
	BSPTCL				Upto:	THI REVISION
			POWER CABLE			
				Date 02.01.2016	Page of: 2 of 2	5
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#### NOTE:

- a. The MQP should be read in conjuction with BSPTCL specification and shall deem to include additional tests if any required as per the contract.
- b. BSPTCL specification shall include provisions of letter of Award, BSPTCL approved drawings /technical data sheet / BOM / test schedule / test procedure applicable to the specific contract.
- c. In case of any contracdiction between the manufacturer's plant standards, this MQP and BSPTCL specification following precedence shall be followed :
  - i) BSPTCL specification
  - ii) This Manufacturing Quality plan.
  - iii) Manufacturer's plant standards
- d. It is the responsibility of the manufacturer to ensure that this document is readily available at their works, as well as at the works of their sub vendors in order to avaoid any delay at the time of inspection.
- e. The manufacturer shall ensure that their as well as their sub vendors control, metering & testing instruments are duly calibrated and should have calibration certificates traceable to Indian/International standards. Calibration records should be available during inspection by BSPTCL. Key testing instruments will be calibrated only by NABL accredited laboratories or manufacturer laboratories.
- f. In case of any tests being carried out at third party lab, such lab / facility should be NABL accrediated /accepted by BSPTCL
- g The manufacturer shall maintain the proper co-relation of test certificates from raw material stage to finished product stage and the records should be available during inspection by BSPTCL.
- h. Manufacturer shall show the approval of BSPTCL engineering for all contract specific type tests, including specific type tests if any as per the BSPTCL specification at the time of final inspection.
- i. All packing cases should be marked with BSPTCL LOA details, name of project, item description and Dispatch Instructions/Clearance number by which material has been cleared for dispatch.
- j. One copy of test report, Dispatch Instructions/Clearance & shall also be sent along with consignment.



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			1.1 KV				
				Rev. No. 00	Valid		Till Revision
	BSPTCL		POWER		Upto:		
			-				
			CABLE	Date 02.01.2016	Page of:	3 of 25	

- k Inspection of spare items ordered by BSPTCL shall also be governed by the provisions of this MQP. Items if not governed under MQP shall be offered for inspection as per BSPTCL specification / Relevant-Indian / International Specification
- I The manufacturer shall align their quality system and that of their sub vendors to the requirements of latest ISO 9000 quality standards in a time bound Manner.
- m The relevant details of plant standards and quality plan for different ratings are shown in attached Annexure.
- n BSPTCL may review the effective implementation of the processes during the product inspection / process inspection in case any violation in process or process parameters are observed, the reason along with corrective & preventive measures shall be conveyed to BSPTCL within 2 weeks.
- o) All the Aluminium wire strands and galvanized steel wire/ strips are required to be tested for each sample drawn for acceptance tests
- p) Strips/ wire armouring following method (a) mentioned in relevant IS 1554(I) shall not be acceptable to BSPTCL.
- q) For single core armoured cables, armouring should be of aluminium wire instead of galvanised steel wire/ strip.
- r) The filler and innersheath shall be of non-hygroscopic fire retardant materials and shall be softer than insulation.
- s) The manufacturer shall not offer repaired cables for inspection under no circumstances.
- t) The contractor shall obtain the following test certificates from their subvendor for various raw materials for review by BSPTCL.
  - i) Chemical composition of Aluminium wire/rod.
  - ii) Purity of Zinc
  - iii) All the test results of the tests carried out by their sub vendor on aluminium wire rod/ Aluminium wire/XLPE Compound for insulation, PVC Compound. for inner and outer sheath and galvanised steel wire/ strips.
- u) The cable ends shall be properly sealed with PVC/ rubber caps and secured with the help of U nails on the side of one of the flange using galvanised steel wire at three locations 75mm apart or more covered with PVC Adhesive tape.
- v) The following test facilities/ calibration certificates shall be available at contractors work.
  - i) Calibration of all testing and measuring equipments.
  - ii) Standard Resistance.
  - iii) Tensile testing Machine.
  - iv) Test facilities for all the galvanising tests.
  - v) Tests facilities for all the tests for XLPE/ PVC insulation / Sheath and final routine and acceptance tests.
- w) The wood used for drums shall meet the requirements of BSPTCL specification. The contractor shall furnish an undertaking regarding the seasoning of wood used for manufacturing of the drums.
- x) Tensile test and wrapping test as specified SI.No 14.2.1 & 14.2.2 above are not required to be conducted in case of compacted circular and shaped conductor line with clause 6.2.1 & 6.2.2 of IS 8130-1984.
- y) In addition to the requirement indicated at serial no 14.1.1 (v) the manufacturer shall get verified the length of 10% of the drums offered by rewinding irrespective of the sizes at the time of final inspection. If by rewinding the length is found less than declared length, another two drums from the same lot shall be verified for declared length. In case of any of these two drums found to have length less than the declared length, the lot will be rejected otherwise the lot will be accepted with the modification of declared length of original drums.
- EM : Equipment Manufacturer



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	DETAILS	-	Code							From			
		BSPTCL		1.1 KV GRADE PVC POWER CABLE	Rev. No. 00					Valid Upto:			Till Revision
					Date 02.01.2016					Page	of: 4 (	of 25	
Sr.	Components / Operations &	Type of Check	Quantum of Check /	Reference	Acceptance Norms	Format	1	۸n	nlical	ble Co	dos		Remarks
No.	Description of Test		Sampling with basis			of Record	1	2	3	4	5	6	Kennarks
A	RAW MATERIAL INSPECTION												
1.0	ALUMINIUM WIRE ROD										E		
1.1	Chemical Analysis	Chem			IS: 4026 (Gr. II) and Power Grid Specification Al-99.6% min. Si-0.13%max. Fe-0.30% max. Cu-0.04% max. (Ti+Va)-0.02% max.	Manuf. T.C./RM TEST REPORT	А	J	S	w			Review of manufacturer's TCs or TRs from 3 <sup>rd</sup> party recognized lab at the time of final inspection.
1.2	Diameter of Aluminium Wire Rod	Meas.	each coil	IS: 5484 & Power Grid Specification Min. 9.00 mm Nom. 9.50 mm Max. 10.00 mm	IS: 5484 & Power Grid Specification Min. 9.00 mm Nom. 9.50 mm Max. 10.00 mm	Manuf. T.C./RM TEST REPORT	A	J	S	w			Review of manufacturers TCs or the records of the contractor at the time of final inspection.
1.3	Breaking Load	Mech	each coil	IS: 5484 & Power Grid Specification Range I to IV Tensile strength- 65 to 150 N/mm <sup>2</sup>	IS: 5484 & Power Grid Specification Range I to IV Tensile strength- 65 to 150 N/mm <sup>2</sup>	Manuf. T.C./RM TEST REPORT	А	J	S	W			Review of manufacturers TCs or the records of the contractor at the time of final inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		۸n	l nlioah	ole Co	doc		Remarks
-					Acceptance Norms	-							Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
1.4	Resistivity/ Conductivity	Elect.	One sample from	IS:5484 Table-3 &		Manuf.	А	J	S	W		Ν	Review of manufacturer's TCs
			each coil	BSPTCL Specn	BSPTCL Specn	T.C./RM							or the records of the
				Max. resistivity	Max. resistivity	TEST							contractor at the time of final
				0.01737 ohm x	0.01737 ohm x	REPORT							inspection.
				mm2/Meter at 20	mm2/Meter at 20								
				deg C. Min.	deg C. Min.								
				conductivity 99.25%	conductivity 99.25%								
				of IACS.	of IACS.								
1.5	Cleanliness & Surface	Visual	100% on each	IS:5484 & BSPTCL	IS:5484 & BSPTCL	Manuf.	А	J	S	W		Ν	Review of manufacturers TCS
	Smoothness (Visual Check)		coil	Specification	Specification	T.C./RM							or the records of the
				The rods shall	The rods shall	TEST							Contractor at the time of
				be bright and clean.	be bright and clean.	REPORT							final inspection.
				It shall be free from	It shall be free from								
				blisters, scale, fins,	blisters, scale, fins,								
				spills cracks and	spills cracks and								
				other defects.	other defects.								
	PVC COMPOUND FOR												
	INSULATION (TYPE-A)										E		
21	Type / Specific Gravity	Meas.	One sample per	IS:5831 & approved	IS:5831 & approved	Manuf	A	.1	s	W		N	Review of manufacturer's TCs
2.1		Modo.		data sheets	data sheets	T.C./RM		о —	<u> </u>	••			or the records of the
			part thereof			TEST							contractor at the time of final
		1				REPORT	<u> </u>						inspection.
												1	
		1					1	İ	İ	1		1	

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format				des		Remarks	
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
2.2	Visual Check for PVC granules i.e. burns etc	Visual	One sample per lot of 5 MT or part thereof	IS:5831 & Approved Data Sheets.Should be generally free from burn particles	IS:5831 & Approved Data Sheets.Should be generally free from burn particles	Manuf. T.C./RM TEST REPORT	A	J	S	W		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
2.3	Tensile strength and elongation before aging	Mech	One sample per lot of 5 MT or part thereof	IS:5831 & Approved Data Sheets. Min. TS-12.5 N/mm2 Elongation 150% (min.)	IS:5831 & Approved Data Sheets. Min. TS-12.5 N/mm2 Elongation 150% (min.)	Manuf. T.C./RM TEST REPORT	A	J	S	w		Ν	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
2.4	Tensile strength and elongation after aging	Mech	One sample per lot of 5 MT or part thereof	IS:5831 & Approved Data Sheets. Min. TS-12.5 N/mm2 Max. variation $\pm$ 20% from the actual values before aging. Elongation-150% (Min.) Max. variation $\pm$ 20% from the actual values before aging.	IS:5831 & Approved Data Sheets. Min. TS-12.5 N/mm2 Max. variation $\pm$ 20% from the actual values before aging. Elongation-150% (Min.) Max. variation $\pm$ 20% from the actual values before aging.	Manuf. T.C./RM TEST REPORT	А	J	S	w			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
2.5	Loss of Mass in air oven	Therm	One sample per lot of 5 MT or part thereof	IS:5831 & BSPTCL Specification Max. 2mg/cm <sup>2</sup>	IS:5831 & BSPTCL Specification Max. 2mg/cm <sup>2</sup>	Manuf. T.C./RM TEST REPORT	А	J	S	w			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
2.6	Thermal Stability	Therm	One sample per lot of 5 MT or part thereof	Specification. The indicating paper shall not change colour when the insulation is kept at a temperature of 200	IS:5831 & BSPTCL Specification. The indicating paper shall not change colour when the insulation is kept at a temperature of 200 deg C for a period of Min. 80 Minutes.	Manuf. T.C./RM TEST REPORT	A	J	S	w		Ν	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
2.7	Volume Resistivity	Elect	thereof	Data Sheets. Min. at 27 deg C -1x10 <sup>13</sup> Ohm.cm. Min. at	IS:5831 & Approved Data Sheets. Min. at 27 deg C -1x10 <sup>13</sup> Ohm.cm. Min. at 70 deg C -1x10 <sup>10</sup> Ohm.cm.	Manuf. T.C./RM TEST REPORT	А	J	S	w		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
	PVC COMPOUND FOR SHEATH (Type ST1)										E		
3.1	Type/Specific gravity	Meas.		IS:5831 & approved data sheet	IS:5831 & approved data sheet	Manuf. T.C./RM TEST REPORT	A	J	S	w			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
_	Visual Check for PVC granules i.e. burns etc.	Visual	One sample per lot of 5 MT or part thereof		IS:5831 & BSPTCL Specification. Should be generally free from burn particles	Manuf. T.C./RM TEST REPORT	A	J	S	w		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference document	Acceptance Norms	Format		Ар	plicab	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	for Testing		of Record	1	2	3	4	5	6	
3.3	Tensile strength and	Mech	One sample per	IS:5831 & BSPTCL	IS:5831 & BSPTCL	Manuf.	A	J	S	W		N	Review of manufacturer's TCs
	elongation before aging		lot of 5 MT or part	Specification.	Specification.	T.C./RM							or the records of the
			thereof	Min.TS 12.5 N/mm2	Min.TS 12.5 N/mm2	TEST							contractor at the time of final
				Elongation 150%	Elongation 150%	REPORT							inspection.
				(min.)	(min.)								
3.4	Tensile strength and	Mech	One sample per	IS:5831 & BSPTCL	IS:5831 & BSPTCL	Manuf.	А	J	s	W		N	Review of manufacturer's TCs
	elongation after aging		lot of 5 MT or part	Specification.	Specification.	T.C./RM		-	-				or the records of the
			thereof	Min.TS 12.5 N/mm2	Min.TS 12.5 N/mm2	TEST							contractor at the time of final
				(max.) variation ±	(max.) variation ±	REPORT							inspection.
				20% from the actual	20% from the actual								
				value before aging	value before aging								
				Elongation 150%	Elongation 150%								
				(min.) Max. variation	(min.) Max. variation								
				± 20% from the	± 20% from the								
				actual values before	actual values before								
				aging	aging								
3.5	Loss of Mass in air Oven	Therm	One sample per	IS:5831 & BSPTCL	IS:5831 & BSPTCL	Manuf.	A	J	s	W		N	Review of manufacturer's TC
0.0			lot of 5 MT or part	Grid Specification	Grid Specification	T.C./RM		Ŭ	<u> </u>	<u> </u>			or the records of the
			thereof	Max. 2mg/cm <sup>2</sup>	Max. 2mg/cm <sup>2</sup>	TEST							contractor at the time of final
				Max. Zing/om	Max. Zing/em	REPORT							inspection.
26	Thermal Stability	Therm	One sample per	IS:5831 & BSPTCL	IS:5831 & BSPTCL	Manuf.	A		S	W		N	Review of manufacturer's TCs
5.0		menn	lot of 5 MT or part	Specification.	Specification.	T.C./RM	^	J	3	vv			or the records of the
			thereof	The indicating paper	The indicating paper	TEST			-	1	-	-	contractor at the time of final
				shall not change colour	shall not change colour	REPORT							inspection.
				when the Sample	when the Sample				-	1	-	-	
				of Sheath is kept at	of Sheath is kept at								
				200 deg.C for a	200 deg.C for a	<u> </u>							
				period of min. 40	period of min. 40	<u> </u>							
				minutes	minutes	1		+	<u> </u>	<u> </u>	t —	<u> </u>	

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plica	ble Co	odes		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
3.7	Oxygen Index Test on PVC for outer sheath only.	Envir.	One sample per lot of 5 MT or part thereof	ASTM-D-2863 & approved data sheets Min. 29%	ASTM-D-2863 & approved data sheets Min. 29%	Manuf. T.C./RM TEST REPORT	A	J	S	W		Ν	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
3.8	Temperature Index Test on PVC for Outer Sheath only.	Envir.	One sample per lot of 5 MT or part thereof	ASTM-D-2863 & approved data sheets Min. 250 Deg.C	ASTM-D-2863 & approved data sheets Min. 250 Deg.C	Manuf. T.C./RM TEST REPORT	A	J	S	W		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.0	ARMOUR WIRE/STRIP										Е		
4.1	DIMENSION	Meas.	One Sample for every 10 coils	IS:3975 & Approved Data Sheets	IS:3975 & Approved Data Sheets	Manuf. T.C./RM TEST REPORT	A	J	S	W		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.2	Tensile Strength	Mech	One Sample for every 10 coils	IS:3975 & Approved Data Sheets	IS:3975 & Approved Data Sheets	Manuf. T.C./RM TEST REPORT	A	J	S	W		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.3	Elongation	Mech	One Sample for every 10 coils	IS:3975 & Approved Data Sheets	IS:3975 & Approved Data Sheets	Manuf. T.C./RM TEST REPORT	A	J	S	W		N	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.4	Torsion/Winding	Mech	One Sample for every 10 coils	IS:3975 & Approved Data Sheets	IS:3975 & Approved Data Sheets	Manuf. T.C./RM TEST REPORT	A	J	S	w		Ν	Review of manufacturer's TCs or the records of the contractor at the time of final inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
4.5	Wrapping test	Mech	One Sample for every 10 coils	IS:3975 & approved Data Sheet.Wrap-8 Unwrap-6 & Wrap-6 on a mandrel as per above IS. The wire shall not crack or break.	IS:3975 & approved Data Sheet.Wrap-8 Unwrap-6 & Wrap-6 on a mandrel as per above IS. The wire shall not crack or break.	Manuf. T.C./RM TEST REPORT	A	J	S	W			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.6	Uniformity of Zinc coating (Preece Test)	Chem.	One Sample for every 10 coils	IS:4826, IS:3975 & approved data sheets. At the end of specified number of dips as per IS,the specimen shall not show any red deposit of copper upon base metal.	IS:4826, IS:3975 & approved data sheets. At the end of specified number of dips as per IS,the specimen shall not show any red deposit of copper upon base metal.	Manuf. T.C./RM TEST REPORT	А	J	S	w			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.7	Weight of Zinc Coating	Chem.	One Sample for every 10 coils	IS:4826, IS:3975 & approved data sheets.	IS:4826, IS:3975 & approved data sheets.	Manuf. T.C./RM TEST REPORT	A	J	S	W			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.
4.8	Adhesion Test	Mech.	One Sample for every 10 coils	IS:4826, IS 3975 & Approved Data Sheets. The Zinc Coating shall remain adherent to the steel wire.	IS:4826, IS 3975 & Approved Data Sheets. The Zinc Coating shall remain adherent to the steel wire.	Manuf. T.C./RM TEST REPORT	А	J	S	w			Review of manufacturer's TCs or the records of the contractor at the time of final inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
4.9	Resistivity	Elect	One Sample for	IS:3975 & Approved	IS:3975 & Approved	Manuf.	A	J	S	W		Ν	Review of manufacturer's TCs
				Data Sheets.	Data Sheets.	T.C./RM							or the records of the
						TEST							contractor at the time of final
						REPORT							inspection.
4 4 0	Chaols for Durity of Zing	Cham	One Comple for			Manuf	A		S	W		N	Deview of Lable test
4.10	Check for Purity of Zinc	Chem		IS:209 & BSPTCL	IS:209 & BSPTCL	Manuf.	А	J	3	vv		IN	Review of Lab's test
			every lot of 50 MT or part thereof	specification	specification	T.C./RM							certificates at the time of
				Min. purity of Zinc	Min. purity of Zinc	TEST							final inspection. The supplier
				99.95%	99.95%	REPORT							of GS wire/strip shall furnish
													an undertaking regarding the
													purity of Zinc used in
													galvanizing.
							1	1		1	1		
							1	1		1	1		
							1	1	1	1	1	1	
							1	İ –	İ	1	1		

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
3	INPROCESS INSPECTION												
5.0	ALUMINIUM DRAWN												
	WIRE (H2 grade)												
5.1	Surface finish and winding	Visual	100% on each	IS:8130 & approved	IS:8130 & approved	In Process	А	J	S	W		Ν	Review of the records of the
	(Visual check)		spool	data sheet. The	data sheet. The	Log Sheet							contractor at the time of final
				wire shall be smooth	wire shall be smooth								inspection.
				and free from	and free from								
				scratches.	scratches.								
5.2	Diameter of drawn Aluminium	Meas.	One Sample from	IS:8130 & approved	IS:8130 & approved	In Process	А	J	S	W		Ν	Review of the records of the
	wire		each spool	data sheet.	data sheet.	Log Sheet							contractor at the time of final
													inspection.
5.3	Tensile strength	Mech	One Sample from	IS:8130 & approved	IS:8130 & approved	In Process	А	J	S	W		Ν	Review of the records of the
			each spool	data sheet	data sheet	Log Sheet							contractor at the time of final
													inspection.
5.4	Wrapping Test	Mech.			IS: 8130 & Approved	In Process	А	J	S	W		Ν	Review of the records of the
			each spool	data sheets. Wrap-8	data sheets. Wrap-8	Log Sheet							contractor at the time of final
				Unwrap-6 & Wrap-6	Unwrap-6 & Wrap-6								inspection.
				on its own dia. The	on its own dia. The								
				wire shall not crack	wire shall not crack								
				or break	or break								
6.0	STRANDING												
6.1	Lay direction & compactness	Visual	Each length at	IS 1554/Approved	IS 1554/Approved	In Process	А	J	S	W		Ν	Review of the records of the
			the beginning	data sheet/	data sheet/	Log Sheet							contractor at the time of final
													inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
6.2	Smoothness/Surface	Visual	100%	The surface shall be	The surface shall be	In Process	А	J	S	W		Ν	Review of the records of the
	scratches (Visual check)			smooth and free	smooth and free	Log Sheet							contractor at the time of final
				from Scratches	from Scratches								inspection.
63	Resistance /Km at 20° C	Elect	One Sample from	IS:8130 & approved	IS:8130 & approved		Δ		S	W		N	Review of the records of the
0.5		LIECI		data sheet.	data sheet.	In Process Log Sheet	^	J	3	vv			contractor at the time of final
				uala sheel.		Log Sheet							inspection.
6.4	Dimensions	Meas.	One Sample from	approved data sheet	approved data sheet		۸	1	S	W		N	Review of the records of the
0.4	Dimensions	ivieas.		approved data sheet	approved data sheet	In Process	A	J	3	vv		IN	contractor at the time of final
			each spool			Log Sheet							inspection.
7.0	INSULATED CORE												
7.0													
7.1	Thickness of Insulation		Each setting	IS:1554(Part-1)Table		In Process	А	J	S	W		Ν	Review of the records of the
	Average	Meas.	during running of	2 & approved data	2 & approved data	Log Sheet							contractor at the time of final
	Minimum	Meas.	machine	sheet	sheet								inspection.
7.2	Type of Insulating Material	Visual	Each setting	IS:1554(Part-1) and	IS:1554(Part-1) and	In Process	А	J	s	W		N	Review of the records of the
			during running of	approved data sheet	approved data sheet	Log Sheet							contractor at the time of final
			machine	Туре-А	Туре-А								inspection.
73	Surface finish	Meas.	Each setting	IS:1554(Part-1) The	IS:1554(Part-1) The	In Process	А	J	S	W		N	Review of the records of the
1.0		inicae.	during running of	Surface shall be	Surface shall be	Log Sheet	<u> </u>	Ŭ	ľ –	<u> </u>	1	<u> </u>	contractor at the time of final
			<u> </u>	smooth and free	smooth and free	Log onoor							inspection.
				from any defects	from any defects								
74	Spark Test	Elect.	100%	min. 6	min. 6		A		S	W		N	Review of the records of the
7.4		_100t.		KV (r.m.s.)	KV (r.m.s.)	In Process Log Sheet	· · ·	5	<u> </u>	**			contractor at the time of final
						Log Oneet							inspection.

ir.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
о.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
7.5	Core Identification/Colour of	Visual	100%	IS:1554 (Part-1) &	IS:1554 (Part-1) &	In Process	А	J	S	W		Ν	Review of the records of the
	cores			approved data sheet	approved data sheet	Log Sheet							contractor at the time of fina
													inspection.
7.6	Facantricity	Maaa	100%	Max 100// approved	May 10%/ approved		٨		S	W		N	Dovious of the records of the
7.0	Eccentricity	Meas.	100%		Max. 10%/ approved	In Process	A	J	3	vv		IN	Review of the records of the
				data sheet	data sheet	Log Sheet							contractor at the time of fin
													inspection.
8.0	LAID UP CORES												
8.1	Direction of Lay	Visual	Each setting	The outer most	The outer most	In Process	A	J	s	W		N	Review of the records of the
	•		during Process	layer shall be right	layer shall be right	Log Sheet							contractor at the time of fir
				hand and other	hand and other								inspection.
				layers opposite to	layers opposite to								
				previous one.	previous one.								
82	Lay Length	Meas.	Each setting	approved data sheet	approved data sheet	In Process	А	.1	S	W		N	Review of the records of t
0.2	Lay Longan	mouo.	during Process	approvou data onoot	approvou data onoot	Log Sheet	<u> </u>	Ŭ	Ĕ	1		<u> </u>	contractor at the time of fir
						Log Officer							inspection.
0.0	Sequence of loving	Visual	Each setting	approved data sheet	approved data sheet		^		S	W		N	Review of the records
0.3	Sequence of laying	visual	- · · · · · · · · · · · · · · · · · · ·	approved data sheet	approved data sheet	In Process	A	J	3	vv	<u> </u>	IN	contractor at the time of fi
			during Process			Log Sheet							
													inspection.
8.4	Tightness of cores	Visual	Each setting	The cores shall be	The cores shall be	In Process	A	J	S	W		Ν	Review of the records of t
			during Process	reasonable tight.	reasonable tight.	Log Sheet							contractor at the time of fir
													inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	le Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
8.5	Diameter	Meas.	Each setting	Approved data sheet	Approved data sheet	In Process	А	J	S	W		Ν	Review of the records of the
			during Process			Log Sheet							contractor at the time of final
													inspection.
9.0	INNER SHEATHING BY												
	EXTRUSION												
9.1	Thickness of inner sheath	Meas.	Each setting	IS:1554(Part-1)	IS:1554(Part-1)	In Process	A	J	S	W		N	Review of the records of the
			during Process	Table-4 & approved	Table-4 & approved	Log Sheet							contractor at the time of final
				data sheets	data sheets	Ŭ							inspection.
		N							_	14/			
9.2	Dia over Inner Sheath	Meas.	Each setting			In Process	А	J	S	W		Ν	Review of the records of the
			during Process	Approved data sheet	Approved data sheet	Log Sheet	-						contractor at the time of final
													inspection.
9.3	Type of Sheathing Material	Visual	Each setting	IS:1554(Part-1) &	IS:1554(Part-1) &	In Process	А	J	S	W		Ν	Review of the records of the
			during Process	approved data sheet	approved data sheet	Log Sheet							contractor at the time of final
													inspection.
9.4	Surface finish	Visual	100%	IS: 1554(Part-1) The	IS: 1554(Part-1) The	In Process	А	J	S	W		N	Review of the records of the
				surface shall be	surface shall be	Log Sheet							contractor at the time of final
				smooth & free from	smooth & free from	Ŭ							inspection.
				any defects.	any defects.								
10.0	ARMOURING												
10.1	No. of armour wires &	Meas.	Starting of M/C	approved data sheet	approved data sheet	In Process	A	J	S	W		N	Review of the records of the
	construction		and during			Log Sheet			I				contractor at the time of final
			running			Ť	1		I				inspection.
							1	1					



	MANUFACTURERS DETAILS	Customer	Vendor's Code	Item:	MQP No :006					Valid From		-	15.01.2016
		BSPTCL	0000	1.1 KV GRADE PVC POWER CABLE	Rev. No. 00					Valid Upto			Till Revision
					Date 02.01.2016					Page	of: 1	6 of 2	5
Sr.	Components / Operations &	Type of	Quantum of Check /		Acceptance Norms				-	ole Co			Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
10.2	Dimensions of Armour Wire/ strip	Meas.	Starting of M/C and during running	approved data sheet	approved data sheet	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.3	Surface Finish	Visual	Starting of M/C and during running		Should be reasonably smooth	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.4	Lay Direction	Visual	Starting of M/C and during running	Left hand lay	Left hand lay	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.5	Gap between two wires/strip	Meas.	Starting of M/C and during running	Not more than one wire dia. / width of strip.	Not more than one wire dia. / width of strip.	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.6	Cross over/over Riding	Visual	Starting of M/C and during running	No cross - over.	No cross - over.	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.7	Armour Coverage/face Bend	Meas.	Starting of M/C and during running		Min. 90% coverage. No face bend	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.
10.8	Dia over Armour	Meas.	Starting of M/C and during running	approved data sheet	approved data sheet	In Process Log Sheet	A	J	S	W		N	Review of the records of the contractor at the time of fina inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicab	le Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
11.0	FINISHED CABLES												
	(Outer Sheathing )												
11.1	Thickness of Outer Sheath	Meas.	Starting of M/C	IS:1554 (Part-1)	IS:1554 (Part-1)	In Process	A	J	S	W		N	Review of the records of the
			and during	Table-7 and	Table-7 and	Log Sheet							contractor at the time of final
			running	approved data sheet	approved data sheet								inspection.
11 2	Type of Sheathing material	Visual	Starting of M/C	IS:1554 (Part-1) &	IS:1554 (Part-1) &		Δ	1	S	W		N	Review of the records of the
11.2	Type of official ing material	VISUUI	and during	approved data sheet	approved data sheet	In Process Log Sheet	~	5	0	~ ~			contractor at the time of final
			running			Log oneer							inspection.
		N // 1											
11.3	Surface finish	Visual	Starting of M/C	The surface shall be	The surface shall be	In Process	A	J	S	W		Ν	Review of the records of the
			and during	smooth and free	smooth and free	Log Sheet							contractor at the time of final
			running	from any defects.	from any defects.								inspection.
11.4	Overall Dia	Meas.	Starting of M/C	Approved data	Approved data	In Process	A	J	S	W		N	Review of the records of the
			and during	sheets	sheets	Log Sheet							contractor at the time of final
			running										inspection.
11.5	Porosity	Visual	Starting of M/C	No Porosity	No Porosity	In Process	А	J	s	W		N	Review of the records of the
-			and during		<b>,</b>	Log Sheet		-	-				contractor at the time of final
			running			- <b>J</b>							inspection.
11 6	Embossing	Visual	Starting of M/C	IS:1554(Part-1) and	IS:1554(Part-1) and		Δ	1	S	W		N	Review of the records of the
11.0		visual	and during	BSPTCL	BSPTCL	In Process	^	J	3	vv		IN	contractor at the time of final
			running	Specification	Specification	Log Sheet							inspection.
				-									
11.7	Progressive Sequential	Visual	Starting of M/C	BSPTCL	BSPTCL	In Process	A	J	S	W		Ν	Review of the records of the
	marking		and during running	Specification	Specification	Log Sheet							contractor at the time of final
													inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
12.0	DRUM WINDING												
12.1	Drum Condition	Visual	100%	BSPTCL	BSPTCL	In Process	А	J	S	W		Ν	Review of the records of the
				Specification	Specification	Log Sheet							contractor at the time of final
													inspection.
										-			
12.2	Bituminized Water proof	Visual	100%			In Process	А	J	s	W		N	Review of the records of the
	Paper Covering		10070	BSPTCL	BSPTCL	Log Sheet	<u> </u>	-	-				contractor at the time of final
				Specification	Specification	209 0.000							inspection.
12.3	Cable Length in Meters	Meas.	100%	Approved data	Approved data	In Process	A	J	S	W		Ν	Review of the records of the
				sheets 500/1000	sheets 500/1000	Log Sheet							contractor at the time of final
				+/- 5%	+/- 5%								inspection.
12.4	Drum Marking	Visual	100%	IS:1554(Part-1) and	IS:1554(Part-1) and	In Process	А	J	S	W		N	Review of the records of the
			10070	BSPTCL	BSPTCL	Log Sheet	-	Ŭ.	-	1			contractor at the time of final
				Specification	Specification		1	1				1	inspection.

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format of		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		Record	1	2	3	4	5	6	
С	FINAL INSPECTION &												
	TESTING												
13.0	ROUTINE TESTING												
13.1	Conductor resistance at 20°C	Elect	100% Drums	IS:8130 Table-2 /	IS:8130 Table-2 /	Routine	A	J	U	Y		Ν	Review of the records of the
				approved data sheet	approved data sheet	Test							contractor at the time of final
						Certificate							inspection.
10.0	Lligh Valtage Test at ream	Elect	1000/ Drume	IC:1551/Dort 1)aboll	IC:1551(Dort 1)aboll	Deutine	٨		U	Y		N	Review of the records of the
13.2	High Voltage Test at room	Elect	100% Drums	IS:1554(Part-1)shall withstand 3 KV	IS:1554(Part-1)shall withstand 3 KV	Routine	А	J	U	Ŷ		IN	contractor at the time of final
	temperature			(r.m.s.) for 5 Minute	(r.m.s.) for 5 Minute	Test Certificate						-	inspection.
						Certificate							inspection.
14.0	ACCEPTANCE TESTS												
14.0													
14 1	FINISHED CABLE												
													Dispatch
14.1.1	Visual Check for	Visual	All Drums	IS:1554(Part-1) /	IS:1554(Part-1) /		А	J	U	Y		Y	Instructions/Clearance
i.)	Core identification				approved data sheet								
ii.)	Embossing			••									
iii.)	Printing quality												
	of sequential marking check												
iv.)	Surface finish												
v.)	Top & Bottom sequential												
	marking check												
vi.)	Length Measurement	Measurement t	hrough rewinding 10%										
14.1.2	High Voltage test at room	Elect		IS:1554(Part-1) /	IS:1554(Part-1) /	Acceptance	А	J	υ	Y		Y	Dispatch
	temperature		100% drums	BSPTCLSpecifi-	BSPTCLSpecifi-	Test	<u> </u>	Í	Ť	†		†	
			1	cation shall with-	cation shall with-	Certificate		1	1	1	1	1	
				stand 3 KV (r.m.s.)	stand 3 KV (r.m.s.)			1	1	1	1	1	
				for 5 minutes.	for 5 minutes.			1	1	1	t	1	

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plical	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
14.1.3	Conductor Resistance at 20°C	Elect	100% Drums	IS:8130 Table 2 /	IS:8130 Table 2 /	Acceptance	А	J	U	Y		Y	Dispatch
				approved data sheet	approved data sheet	Test		1					Standard resistance to be
						Certificate							kept available for equipment
													callibration verification.
14.1.4	Insulation Resistance Test	Elect		IS:5831 / approved	IS:5831 / approved	Acceptance Test	A	J	U	Y		Y	Dispatch Instructions/Clearance
				data sheets. Min.	data sheets. Min.	Certificate							
				at 27°C 36.7 M Ohm	at 27°C 36.7 M Ohm								
				Km	Km								
14.1.5	Flamability Test	Thermal	1 sample per lot	IS:1554(Part-1) /	IS:1554(Part-1) /	Acceptance	A	J	U	Y		Y	Dispatch Instructions/Clearance
			for each size	BSPTCLSpecn.	BSPTCLSpecn.	Test Certificate							
44.0													
14.2	ALUMINIUM CONDUCTOR												
14.2.1	Topoilo etropath	Mech	1 comple for	BSPTCL	BSPTCL	Acceptance	Α		IJ	Y		Y	Dispatch Instructions/Clearance
14.2.1	Tensile strength	IVIECT		Specification	Specification	Test	A	J	0	I		I	
				Min 100 N/mm <sup>2</sup>	Min 100 N/mm <sup>2</sup>	Certificate							
			size										
			5120										
													Dispatch
14.2.2	Wrapping Test	Mech.		BSPTCL	BSPTCL	Acceptance Test	А	J	U	Y		Y	Instructions/Clearance
				Specification.	Specification.	Certificate							
					Wrap-8, Unwrap-6 &								
				•	Wrap-6 on its own dia	l.							
				The wire shall not	The wire shall not								
				crack or break.	crack or break.								
14.3	PVC INSULATION & SHEATH												Dispetch
14.3.1 i.)	Thickness of insulation of core Average	Meas.	1 sample for every 10 drums or part thereof per	IS:1554(Part-1) Table-2 / approved data sheets.	IS:1554(Part-1) Table-2 / approved data sheets.	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
ii.)	Minimum		size										

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
14.3.2	Thickness of Inner Sheath	Meas.	1 sample for	IS:1554(Part-1)	IS:1554(Part-1)	Acceptance	А	J	U	Y		Y	Dispatch
			every 10 drums or	Table-4 / approved	Table-4 / approved	Test				1			·
			part thereof per	data sheets.	data sheets.	Certificate							
			size						1			1	
14.3.3	Thickness of Outer Sheath	Meas.	1 sample for	IS:1554(Part-1)	IS:1554(Part-1)	Acceptance Test	А	J	υ	Y		Y	Dispatch Instructions/Clearance
			every 10 drums or	Table-7 / approved	Table-7 / approved	l est Certificate							
			part thereof per	data sheets.	data sheets.	Ocrimotic							
			size										
						Accontones							Dispatch
14.3.4	Tensile Strength &	Mech		IS:5831 Table-1 /	IS:5831 Table-1 /	Acceptance Test	A	J	U	Y		Y	Instructions/Clearance
	Elongation for Insulation			Approved data	Approved data	Certificate							
			part thereof per	sheets. Min. TS	sheets. Min. TS								
			size	12.5 N/mm2.	12.5 N/mm2.								
				Elongation 150%	Elongation 150%								
				(Min.)	(Min.)								
14.3.5	Tensile strength & Elongation	Mech		IS:5831 Table-2 /	IS:5831 Table-2 /	Acceptance Test	A	J	U	Y		Y	Dispatch Instructions/Clearance
	for Inner & Outer Sheath		every 10 drums or	Approved data	Approved data	Certificate							
			part thereof per	sheets. Min. TS	sheets. Min. TS								
			size	12.5 N/mm2.	12.5 N/mm2.								
				Elongation 150%	Elongation 150%								
				(Min.)	(Min.)								
14.3.6	Cold Bend Test for all	Mech	1 sample of any	IS:1554(Part-1). No	IS:1554(Part-1). No	Acceptance	А		υ	Y		Y	Dispatch Instructions/Clearance
1 1.0.0	diameter	Moon	size per order	signs of cracks or	signs of cracks or	lest		Ŭ	Ĕ	t`		† –	
				scales	scales	Certificate							
		1							<u> </u>	+	1	<u> </u>	
						Acceptance							Dispatch
14.3.7	Cold Impact test for diameter	Mech		IS:1554(Part-1). No	IS:1554(Part-1). No	Test	A	J	U	Y		Y	Instructions/Clearance
	more than 12.5 mm		size per order	signs of cracks or	signs of cracks or	Certificate		<u> </u>		<b> </b>			
				scales	scales		I	I	1	1	1	1	

Sr.	Components / Operations &	Type of	Quantum of Check /	Reference	Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
14.3.8	Oxygen Index test on outer sheath	Envir.	for each size	ASTMD-2863 / approved data sheet Min. 29%	ASTMD-2863 / approved data sheet Min. 29%	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch
14.3.9	Temperature Index test on outer sheath	Envir.	for each size	ASTMD-2863 / approved data sheet Min. 250 Deg.C	ASTMD-2863 / approved data sheet Min. 250 Deg.C	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.3.10	Flame Retardant test on single core cables	Thermal	for each size	IS:1554 CI. 16.6 No visible damages on the test specimen within 300 mm from its upper end	IS:1554 Cl. 16.6 No visible damages on the test specimen within 300 mm from its upper end	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.4	ADDITIONAL TESTS FOR FRLS CABLES												
14.4.1	Smoke Density Rating	Envir.	for each size	ASTMD-2843 / approved data sheet Max. 60%	ASTMD-2843 / approved data sheet Max. 60%	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.4.2	Acid Gas Generation	Envir.	for each size	IEC-754-1 / Power Grid Specn. Max. 20% by weight	IEC-754-1 / Power Grid Specn. Max. 20% by weight	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.4.3	Flamability Test	Thermal		IEEE-383 Swedish Chimney SS-424-14	IEEE-383 Swedish Chimney SS-424-14	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
				-75 class-F3 & approved data sheet	-75 class-F3 & approved data sheet								

Sr.	Components / Operations &	Type of	Quantum of Check /		Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
14.5	ARMOURING												Disastak
14.5.1	Resistivity for Armour wire	Elect	every 10 drums or part thereof per	IS:3975 ./ approved data sheets Max. 14.5 x 10 <sup>-6</sup> Ohm.cm at 20 Deg.C	IS:3975 / approved data sheets Max. 14.5 x 10 <sup>-6</sup> Ohm.cm at 20 Deg.C	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.5.2	Tensile Strength	Mech	1 sample per every 10 drums or part thereof per size	IS:3975 / approved data sheets	IS:3975 / approved data sheets	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.5.3	Closeness	Visual	every 10 drums or part thereof per size	IS:3975 / approved data sheets. Gap between two wires shall not be more than one wire dia/ width of strip	IS:3975 / approved data sheets. Gap between two wires shall not be more than one wire dia/ width of strip	Acceptance Test Certificate	А	J	U	Y		Y	Dispatch Instructions/Clearance
14.5.4	Uniformity of zinc coating	Meas.	every 10 drums or part thereof per size	IS:3975 & IS:4826 / approved data sheets. At the end of specified number of dips as per IS, the specimen shall not show any red deposit of copper upon base metal.	IS:3975 & IS:4826 / approved data sheets. At the end of specified number of dips as per IS, the specimen shall not show any red deposit of copper upon base metal.	Acceptance Test Certificate	А	IJ	U	Y			Dispatch Instructions/Clearance

Sr.	Components / Operations &	Type of	Quantum of Check /		Acceptance Norms	Format		Ар	plicat	ole Co	des		Remarks
No.	Description of Test	Check	Sampling with basis	document for Testing		of Record	1	2	3	4	5	6	
14.5.5	Weight of Zinc Coating	Chem	1 sample per every 10 drums or part thereof	IS:3975, IS:4826 / approved data sheet	IS:3975, IS:4826 / approved data sheet	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.5.6	Torsion/Winding	Mech	1 sample per every 10 drums or part thereof per size	IS:3975 / approved data sheets.	IS:3975 / approved data sheets.	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.6	DRUMS												
14.6.1	Visual check for defects	Visual	100%	BSPTCL Specification	BSPTCL Specification	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.6.2	Dimensions	Meas.	1 sample per every 10 drums or part thereof per size	Approved drawings	Approved drawings	Acceptance Test Certificate	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.6.3 <b>14.7</b>	sealing of drums Additional Test(If called in t Physical test for insulation and outer		100%	As per attached anne	l xure	Test	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.7.1	Shrinkage Test	Meas.	1 Sample/Lot/Type	BSPTCL specs/As Per IS 1554(Part-1)	BSPTCL specs/As Per IS 1554(Part-1)	Test Report	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.7.2	Hot Deformation Test	Meas.	1 Sample/Lot/Type	BSPTCL specs/As Per IS 1554(Part-1)	BSPTCL specs/As Per IS 1554(Part-1)	Test Report	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.7.3	Heat Shock Test	Meas.	1 Sample/Lot/Type	BSPTCL specs/As Per IS 1554(Part-1)	BSPTCL specs/As Per IS 1554(Part-1)	Test Report	A	J	U	Y		Y	Dispatch Instructions/Clearance
14.7.4	Thermal Stablity	Meas.	1 Sample/Lot/Type	BSPTCL specs/As	BSPTCL specs/As	Test Report	A	J	υ	Y		Y	Dispatch Instructions/Clearance

	MANUFACTURING QUALITY PLAN PVC POWER CABLE													
	MANUFACTURERS	Customer	Vendor's	Item:	MQP No :006					Valid	1		15.01.2016	
	DETAILS	BSPTCL Type of Check	Code Quantum of Check / Sampling with basis	1.1 KV GRADE PVC POWER CABLE Reference document for Testing	Rev. No. 00					From: Valid Upto:			Till Revision	
Sr. No.	Components / Operations & Description of Test											1		
					Date 02.01.2016				Page of: 25 of 25					
					Acceptance Norms	Format Applicab				ble Codes			Remarks	
						of Record	1	2	3	4	5	6		
	High Volatge Test(Water												Dispatch	
	Imersion Test only AC Test as												Instructions/Cle	
14.8	per clause no.16.3.1of new tech specs.	Meas.	1 Sample/Lot/Type	BSPTCL specs/As Per IS 1554(Part-1)	BSPTCL specs/As Per IS 1554(Part-1)	Test Report	A	J	U	Y		Y	arance	
45.0	TYPE TEOTO													
15.0	TYPE TESTS	PERTCL apparition	ations by REDTCI											
	All type tests to be carried out as per BSPTCL specifications by BSPTCL Engineering Deptt. Approval of type tests by Engg. Deptt. Or waiver there			a of to be		Type Test								
	shown at time of Final Inspection					Certificate								
16.0	PACKING & DISPATCH													
	(Check for identification &													
	packing)													
16.1	Application of bituminized		)											
	water proof paper		)											
16.2	Space between outer most		)											
40.0	layer & drum edge		)											
	Proper Packing		)											
	Sealing of ends Manufacturer's name		ľ.				1				1			
	Nanufacturer's name		2											
10.6	consignee		)										Review of the	
16.7	Contract number	Visual	) 100%	Power Grid	Power Grid	Check	A	J	s	w		N	records of the contractor at	
16.8	Drum Number		)	Specification	Specification	List	1						the time of final	
16.9	Type,Size and length of the		)										inspection.	
	cable		)	Process of sealing of	drums as per attached	annexure	1				1			
	Gross weight		)											
	Tare Weight		)											
	Nett Weight		)				1				1			
	Arrow marking for unwinding		)											
	, area manang ter antinang	•												
16.13	Dispatch Instructions/Clearance/	Nos Marking	)											