

QUALITY ASSURANCE PLAN
INSTRUMENTATION CABLES [BS:1308/Part-III/88, IS:1554/Part-I/88]

S.N.	Component	Characteristic	Category Checked	Type	Extent Of Check	Acceptance Method	
RAW MATERIAL							
01.	Copper Conductor	Diameter	Major	Measurement Test	100%	IS:8130/84	
		Annealing/Tensile Strength	Major	Measurement Test	100%	IS:8130/84	
		Spec. Conductor Resistance	Critical	Electrical Test	100%	IS:8130/84 BS:5308/I&II/86	
		Pur sulphate Test	Critical	Chemical Analysis	10%	IS:8130/84	
02.	PVC / HR / PE Compound	Thermal Stability	Critical	Chemical Test	10%	IS:5831/84	
		T.S. & Elongation	Major	Physical Test	10%	BS:6746/90, BS:6234	
03.	Test On G.I.Wire	Dia Meter	Major	Measurement Test	100%	IS:3975/79	
		T. S. & Elongation	Major	Physical Test	10%	IS:3975/79	
		Torsion Test	Major	Measurement Test	10%	IS:3975/79	
		Mass & Uniformity Of Zinc	Major	Measurement Test	10%	IS:3975/79	
IN PROCESS							
01.	Conductor Stranding	No. Of Strand/Dia of Wire	Major	Counting/Measurement	100%	GTP	
		Conductor Resistance	Major	Electrical	Setting Start & Finish Of Each Drum	IS:8130/84 BS:5308/I&II/86	
02.	Insulation PVC [Type – A / C / T11]	Spark Test Eccentricity	Critical	Visual	100%	BS:5308/I&II/86	
		Core Diameter	Major	Measurement	Setting Start & Finish Of Each Drum	BS:5308/I&II/86	
03.	Core Laying	Thickness	Major	Measurement	- do -	GTP, BS5308/I&II/86	
		Color Sequence	Major	Visual	Setting Start & Finish Of Each Drum	Uniform/GTP	
04.	Inner Sheath PVC [Type - ST1 / ST2 / TM1]	Lay Direction/Lay Length	Major	Visual	Setting Start & Finish Of Each Drum	BS:5308/I&II/86	
		Thickness	Major	Measurement	Setting Start & Finish Of Each Drum	GTP, IS:1554/I/88	
05.	Armouring	Armour Dimension	Major	Measurement	100%	GTP, IS:1554/I/88 & BS:5308/I&II/86	
		Lay Direction/Lay Length High Voltage	Major Critical	Visual Measurement	Setting Start 100%	BS:5308/I&II/86 BS:5308/I&II/86	
06.	Outer Sheath PVC [Type - ST1 / ST2 / TM1]	Thickness	Major	Measurement	Setting Start & Finish Of Each Drum	GTP, IS:1554/I/88	
		Marking &/Embossing Color	Major Major	Visual Visual	Continuous Continuous	GTP GTP	
FINAL TESTING BY QUALITY CONTROL & INSPECTION							
01.	Testing On Cable	Routine Test	Critical	Electrical Test	100%	BS:5308/I&II/86	
		Type Test	Critical	Test	10%	BS:5308/I&II/86	
		<u>Acceptance Test For Inspection</u>					
		Conductor Resistance Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		High Voltage Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		Insulation Resistance Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		Capacitance Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		L/R Ratio Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		Al. Mylar Tape Thickness Test	Critical	Physical Test	As per IS	BS:5308/I&II/86 & GTP	
		Drain Wire Test	Critical	Electrical Test	As per IS	BS:5308/I&II/86 & GTP	
		Insulation/Inner Sheath/Outer Sheath Thickness Test	Major	Physical Test	As per IS	BS:5308/I&II/86 & GTP	
		Armour Wire Diameter	Major	Physical Test	As per IS	BS:53058/I & II/86 & IS:1554/I/88 & GTP	
		Insulation/Sheath Tensile Strength	Major	Physical Test	As per IS & BS	IS:5831/84	
		Insulation/Sheath Elongation	Major	Physical Test	As per IS & BS	IS:5831/84	
		Flammability Test	Major	FRLS Test	As per IEC	IEC 332/Part-1	
		Oxygen Index	Major	FRLS Test	As per ADTMD	ASTMD-2863	
Temperature Index	Major	FRLS Test	As per ADTMD	ASTMD-2863			
Smoke Density Rating	Major	FRLS Test	As per ADTMD	ASTMD-2843			
02.	Packing	Drum	Major	Test	100%	Wood Should be free from Knot	
		End Sealing Of Cable	Major	Visual	100%		

[GTP : General Technical Particulars]

T C COMMUNICATION PVT. LTD.,