
	ANNEXURE TO QAP	CUSTOMER: NNTPS	PROJECT TITLE: 2x500 MW NEW NEYVELI THERMAL POWER STATION (NNTPS)	SPECIFICATION NUMBER: PE-TS-400/402-507-E001
		BIDDER/VENDOR:	QUALITY PLAN NUMBER : PED-507-00-Q-001, R5	SPECIFICATION TITLE: TECHNICAL SPEC. FOR HT XLPE POWER CABLES
	Sheet 17 OF 8	SYSTEM	ITEM: XLPE POWER CABLES	DOC. NO.

S. No.	TEST	APPLICABLE FOR	TEST CONDUCTION REQUIRED AS	REMARKS
IX.	Wrapping Test	For Aluminium wires only	A	
<b>3.0</b>	<b>Physical Tests for XLPE Insulation &amp; PVC sheath</b>			
I.	Test for thickness	Applicable for XLPE insulation, PVC inner sheath & PVC outer sheath	T, A	
II.	Tensile strength and elongation test at break	Applicable for XLPE insulation & PVC outer sheath		
(a)	Before ageing		T, A	
(b)	After ageing		T, A	
III.	Ageing in air oven	Applicable for XLPE insulation & PVC outer sheath	T	
IV.	Loss of mass in air oven test	For PVC outer sheath only	T	
V.	Hot deformation test	For PVC outer sheath only	T	
VI.	Heat shock test	For PVC outer sheath only	T	
VII.	Shrinkage test	For XLPE insulation & PVC outer sheath only	T	
VIII.	Thermal stability test	For PVC outer sheath only	T	
IX.	Hot set test	For XLPE insulation only	T, A	
X.	Water absorption (gravimetric) test	For XLPE insulation only	T	
<b>4.0</b>	<b>FRLS Tests</b>			
I.	Oxygen index test	For PVC outer sheath only	T, A	
II.	Smoke density test	For PVC outer sheath only	T, A	
III.	Acid gas generation test	For PVC outer sheath only	T, A	
<b>5.0</b>	<b>Flammability Tests</b>			
I.	Flammability test to IEC-60332 Part-3-23, Cat-B for bunched cables	For complete cable	A	Shall be conducted on one sample only/ lot
II.	Flammability test to IEC:60332 Part-1 for Single cable	For complete cable	T	Shall be conducted on one sample only/ lot
III.	Swedish chimney test to SEN SS 424 1475	For complete cable	A	Shall be conducted on one sample only/ lot
IV.	Flammability test to IEEE: 383	For complete cable	A	Shall be conducted on one sample only/ lot

BHEL	PARTICULARS	BIDDER/ VENDOR	
	NAME		
	SIGNATURE		
	DATE		BIDDER'S / VENDORS COMPANY SEAL

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S. No.	TEST	APPLICABLE FOR	TEST CONDUCTION REQUIRED AS	REMARKS
<b>6.0</b>	<b>Electrical Tests</b>			
I.	High Voltage Test	For complete cable	T, A, R	
II.	Insulation Resistance Test (Volume resistivity method)	For complete cable	T, A	
III.	Partial discharge test (shall be carried out on full drum length)		T,A,R	
IV.	Bending Test followed by Partial Discharge test		T	
V.	Dielectric Power Factor Test (i) As a function of voltage (ii) As a function of temperature	Applicable for 6.35/11kV & above only	T	
VI.	Heating Cycle Test		T	
VII.	Impulse Withstand Test	Applicable for 6.35/11kV & above only	T	
VIII.	<u>Anti-rodent and Termite Repulsion test</u>	For PVC outer sheath only	A	Test applicable if indicated in Data Sheet-A
IX.	<u>Anti-Fungal Test</u>	For PVC outer sheath only	A	Test applicable if indicated in Data Sheet-A
<b>7.0</b>	<b>Special Tests</b>			
a)	<u>UV Radiation test as per BS EN ISO 4892-2</u>	For complete cable	A	Test applicable if indicated in Data Sheet-A
	<u>Hydrolytic test as per ASTM D 3137</u>	For complete cable	A	

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