



NABL

National Accreditation Board for Testing and Calibration Laboratories

(An Autonomous Body under Department of Science & Technology, Govt. of India)

CERTIFICATE OF ACCREDITATION

TEMPESENS TESTING CENTRE

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2005

"General Requirements for the Competence of Testing & Calibration Laboratories"

for its facilities at

A-190, Road No.5, M.I.A., Udaipur, Rajasthan

in the discipline of

ELECTRICAL TESTING

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Certificate Number T-4096

Issue Date 06/09/2016



Valid Until 05/09/2018

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the additional requirements of NABL.

Signed for and on behalf of NABL

N. Venkateswaran
Program Manager

Anil Relia
Director

Prof. S. K. Joshi
Chairman



रा.प्र.प्र.बो.

राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड

(विज्ञान एवं प्रौद्योगिकी विभाग, भारत सरकार के अधीन स्वायत्तशासी निकाय)

प्रत्यायन प्रमाण-पत्र

टेम्पसन्स टेस्टिंग सेन्टर

का मूल्यांकन और प्रत्यायन निम्न मानक के अनुसार

आई.एस.ओ./आई.ई.सी. 17025:2005

“परीक्षण एवं अंशशोधन प्रयोगशालाओं की सक्षमता की सामान्य अपेक्षाएँ”

उदयपुर, राजस्थान

में स्थित इसकी सुविधाओं के लिए

विद्युत परीक्षण

के विषय क्षेत्र में किया गया।

(इस प्रयोगशाला के प्रत्यायन के विषय क्षेत्र की जानकारी एन ए बी एल वेबसाइट www.nabl-india.org से भी प्राप्त कर सकते हैं)

प्रमाण-पत्र संख्या प-4096

जारी करने की तिथि 06/09/2016



वैधता की तिथि 05/09/2018

यह प्रमाण-पत्र उपर्युक्त मानक तथा राष्ट्रीय परीक्षण और अंशशोधन प्रयोगशाला प्रत्यायन बोर्ड की अतिरिक्त अपेक्षाओं का निरंतर संतोषप्रद अनुपालन किए जाने पर अनुबंध में निर्दिष्टानुसार प्रत्यायन के क्षेत्र के लिए वैध रहेगा।

रा.प्र.प्र.बो. की ओर से हस्ताक्षरित

एन. वेंकटेश्वरन

एन. वेंकटेश्वरन
कार्यक्रम प्रबन्धक

अनिल रेलिया

अनिल रेलिया
निदेशक

श्रीकृष्ण जोशी

प्रो. श्रीकृष्ण जोशी
अध्यक्ष



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SCOPE OF ACCREDITATION

Laboratory	Tempsens Testing Centre, A-190, Road No.5, M.I.A., Udaipur, Rajasthan		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	06.09.2016
Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	1 of 7

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I. CABLE AND ACCESSORIES				
1.	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable(IS 1554:Part 1: 1988), XLPE Insulated Armured/Unarmoured Cable(IS :7098 :Part 1: 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Annealing	IS 10810 (Part 1): 1984 , IS 8130: 1984 Clause. 6.1.2	Upto 224 % Upto 560 mm
		Wrapping (For Aluminum)	IS 10810 (Part 3): 1984 , IS 8130: 1984 Clause. 6.2.2	Qualitative
		Conductor Resistance	IS 10810 (Part 5): 1984 , IS 8130: 1984 Clause. 6.3, IEC 60228, IS 1554 (Part 1): 1988, Table. 6, IS 7098 (Part 1) Table. 7	0.2 $\mu\Omega$ to 2000 Ω
		Persulphate Test(For Tinned Copper Conductor Cable Only)	IS 10810 (Part 4): 1984, IS 8130: 1984 Clause. 6.1.1	Upto 5 g/m ²
		Torsion Test On Galvanized Steel Wire For Armouring	IS 10810 (Part 38): 1984, IS 3975: 1999 Clause. 8.2	Upto 999 count
		Uniformity Of Zinc Coating	IS 10810 (Part 40): 1984, IS 3975: 1999 Clause. 9.2	Qualitative
		Mass Of Zinc Coating On Steel Wire	S 10810 (Part 41): 1984, IS 3975: 1999 Clause. 9.1	Upto 200 g/m ²
		Resistivity & Conductance Of Armour (Wires/Strips)	IS 10810 (Part 42): 1984, IS 3975: 1999 Clause. 8.4	0.2 $\mu\Omega$ to 2000 Ω
		Loss Of Mass	IS 10810 (Part 10): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part I/ Sec IV): 1988 IEC 60227-1 Table. 1 & 2, IEC 60227-5 Table. 2,6,8,10,12,14, IEC 60811-3-2 Clause. 8.1	Ambient to 350 °C

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Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	06.09.2016
Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	2 of 7

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable(IS 1554 (Part 1): 1988), XLPE Insulated Armured/Unarmoured Cable(IS :7098 :Part 1: 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Additional Ageing (OU Cables Only)	IS 694: 2010 Clause. 10.9	Qualitative
		Overall Dimension and Thickness	IS 10810 (Part 6): 1984, IS 10810 (Part 36): 1984, IS 694: 2010 Clause. 5.3,8. Table. 3 to 10, IS 1554 (Part 1) 1988 Clause. 9.2,9.3,12.3,13.3,14.4 Table4,5,7 , IS 7098 (Part 1) 1988 Clause. 9.2,9.3,12.3,14.3 Table. 3,5,6,8 , IS 9968 (Part 1) 1988 Clause. 12.2,12.3, 19.2,19.3 Table. 1 to 10, IEC 60811-1-1, IEC 60227-1 Clause. 5.2.3,5.4.3,5.5.3, IEC 60227-2 Clause. 1.9,1.10,1.11, IS 3975: 1999 Table. 3,4	Up to 40 mm
		Tensile Strength And Elongation At Break	IS 10810 (Part 7): 1984, IS 10810 (Part 37): 1984 , IS 10810 (Part 2): 1984, IS 5831: 1984 Table. 1,2, IS 8130: 1984 Clause. 6.2, IS 6380: 1984 Table. 2,3, IS 6380: 1984 Table. 2,3 , IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1) 1988 Table. 1 Sec IV), IS 9968 (Part 1/ Sec IV): 1988 IEC 60227-1 Table. 1 & 2,	Upto 2500 N Upto 700 %

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Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	06.09.2016
Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	3 of 7

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable (IS 1554 (Part 1): 1988), XLPE Insulated Armured/Unarmoured Cable (IS :7098 :Part 1: 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Tensile Strength And Elongation At Break Ageing In Air Oven Shrinkage Hot Set Oil Resistance	IEC 60811-1-1,1-2, Clause. 9.1,8.1, IS 3975: 1999 Clause. 8.1 Table. 5 IS 10810 (Part 11): 1984 IS 5831: 1984 Table. 1, 2, IS 6380: 1984 Table. 2,3, IS 694: 2010 Table. 1, IS 1554 (Part 1): 1988 Sec IV), IS 7098 (Part 1/Sec IV): 1988 Table. 1, IS 9968 Section 4 IEC 60811-1-2,8.1, IEC 60227-1 Table. 1,2 IS 10810 (Part 12): 1984, IS 5831: 1984 Table. 1,2 IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988 ,IS 7098 (Part 1/ Sec IV): 1988 Table. 1 IS 10810 (Part 30): 1984, IS 7098 (Part 1): 1988 Table 1, IS 6380: 1984 Table 2,3, IS 9968 (Part 1/ Sec IV): 1988 IS 10810 (Part 31): 1984, IS 6380: 1984 Table 2,3, IS 9968 (Part 1 Sec IV): 1988	Upto 2500 N Upto 700 % Ambient to 350 °C Upto 2500 N Upto 700 % Ambient to 350 °C Upto 300 mm Ambient to 250 °C Upto 650 % Ambient to 200 °C Upto 2500 N Upto 700 %

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SCOPE OF ACCREDITATION

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Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	06.09.2016
Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	4 of 7

S. NO.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable (IS 1554 (Part 1): 1988), XLPE Insulated Armured/Unarmoured Cable (IS 7098 (Part 1): 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Heat Shock / Heat Resistance	IS 10810 (Part 14): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Par1/Sec IV): 1988, IS 7098 (Part 1 Sec IV): 1988, IEC 60227-1 Table. 1 & 2, IEC 60811-3-1 Clause. 9.1	Ambient to 350 °C
		Water Absorption (Gravimetric	IS 10810 (Part 33): 1984 , IS 7098 (Part 1): 1988 Table 1	Ambient to 350°C Upto 200 g
		Hot Deformation Test/ Pressure Test At High Temperature	IS 10810 (Part 15): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1/Sec IV): 1988, IEC 60227-1 Table. 1,2, IEC 60811-3-1 Clause. 8.1	Ambient to 350 °C Upto 100 %
		Thermal Stability	IS 10810 (Part 60): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1/Sec IV): 1988, IEC 60227-1 Table. 1,2, IEC 60811-3-2 Clause. 9	Ambient to 250 °C Upto 24 h
		Cold Bend /Bending At Low Temperature	IS 10810 (Part 20): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1/Sec IV): 1988, IEC 60227-1 Table. 1,2, IEC 60811-1-4 Clause. 8.1,	(-)20 °C to 45 °C


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Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Electrical Testing	Issue Date	06.09.2016
Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	5 of 7

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable (IS 1554 (Part 1): 1988), XLPE Insulated Armured/Unarmoured Cable (IS 7098 (Part 1): 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Cold Impact / Impact At Low Temperature Insulation Resistance AC High Voltage (Water Immersion) DC High Voltage (Water Immersion)	IS 10810 (Part 20): 1984, IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1/Sec IV): 1988, IEC 60227-1 Table. 1,2, IEC 60811-1-4 Clause. 8.5 IS 10810 (Part 43): 1984 IS 5831: 1984 Table. 1,2, IS 694: 2010 Table. 1, IS 1554 (Part 1/Sec IV): 1988, IS 7098 (Part 1/Sec IV): 1988, Table. 1, IS 6380: 1984 Table. 1,2, IS 9968 (Part 1/Sec IV): 1988, IEC 60227-2 Clause. 2.4 IS 10810 (Part 45): 1984, IS 694: 2010 Clause. 10.1, Table. 1, IS 1554 (Part 1 Sec IV): 1988 Clause. 16.3.1, IS 9968 (Part 1 Sec IV): 1988 Clause. 22.2.1 IS 10810 (Part 45): 1984, IS 694: 2010 Clause. 10.2, Table. 1, IS 1554 (Part 1 Sec IV): 1988 Clause. 16.2, IS 9968 (Part 1 Sec IV): 1988 Clause. 22.2.2	(-)20 °C to 45 °C 1 megaΩ to 10 ⁸ megaΩ Upto 10 kV Upto 3 kV

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Accreditation Standard	ISO/IEC 17025: 2005		
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Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	6 of 7

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable (IS 1554:Part 1: 1988), XLPE Insulated Armured/Unarmoured Cable (IS 7098 (Part 1): 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	High Voltage (At Room Temp)	IS 10810 (Part 45): 1984, IS 694: 2010 Clause. 10.2, Table. 1, IS 1554 (Part 1/ Sec IV): 1988 Clause. 16.2, IS 9968 (Part 1/ Sec IV): 1988 Clause. 22.2.2,	Upto 10 kV
		Temperature Index	IS 10810 (Part 64): 1984, IS 694: 2010 Clause. 10.7 Section. 4 IS 1554 (Part 1): 1988 Clause. 16.10, IS 7098 (Part 1): 1988 Clause. 16.14, ASTM D 2863	Upto 1000°C
		Flammability	IS 10810 (Part 53): 1984, IS 694: 2010 Clause. 10.4, Table. 1, IS 1554 (Part 1/ Sec IV): 1988 Clause. 16.4, IS 7098 (Part 1/ Sec IV): 1988 Clause. 16.3, IS 9968 (Part 1/Sec IV): 1988, Clause. 22.3, IEC 60332-1 Clause. 5.6.3.4	Qualitative
		Oxygen Index	IS 10810 (Part 58): 1984, IS 694: 2010 Clause. 10.5, Table. 1, IS 1554 (Part 1): 1988 Clause. 16.5, IS 7098 (Part 1): 1988 Clause. 16.9 ,ASTM D 2863 IS 10810 (Part 58): 1984, IS 694: 2010, IS 1554 (Part 1): 1988, IS 7098 (Part 1): 1988, ASTM D 2863	Upto 100 %

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Certificate Number	T- 4096	Valid Until	05.09.2018
Last Amended on	-	Page	7 of 7

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	PVC Insulated Unsheathed And Sheathed Cables/Cords (IS 694: 2010), PVC Insulated (HD)Armoured/Unarmoured Cable (IS 1554:Part 1: 1988), XLPE Insulated Armured/Unarmoured Cable (IS 7098 (Part 1): 1988), Elastomeric Insulation And Sheathed Cable (IS 9968 (Part 1): 1988) And PVC Insulated Cables Of Rated Voltage Upto And Including 450/750V (IEC 60227)	Halogen Acid Gas Evaluation Smoke Density Rating	IS 10810 (Part 59): 1984, IS 694: 2010 Clause. 10.6, Section 4, IS 1554 (Part 1): 1988 Clause. 16.9, IS 7098 (Part 1): 1988 Clause. 16.13 IS 13360 (Part 6/Sec IX): 2001, ASTMD 2843, IS 694: 2010 Clause. 10.8, IS 1554 (Part 1): 1988 Clause. 16.11, IS 7098 (Part 1): 1988 Clause. 16.15	Ambient to 1000 °C Upto 100 % Up to 100 %

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