

TEST REPORT

TEST REPORT AS PER: IS 11654(Part 3/ Sec 1): 1988

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ULR No.:-	Nil	Group:	ELECTRICAL
Test Report No.	STC/Test/N20210802001	Date of Issue:	23/08/2021

Name & Address of Customer:	DEE FIVE SHRINK INSULATIONS PVT LTD. Plot no.165, HSIIDC, Sector-17, Bahadurgarh -124507, Haryana		
Name & Address of Manufacturer (If required):	DEE FIVE SHRINK INSULATIONS PVT LTD. Plot no.165, HSIIDC, Sector-17, Bahadurgarh -124507, Haryana		
Customer Ref. & Date:	Nil	W.O. No.:	N20210802001
Date of Sample Receipt: 02/08/2021	Start of Test Date: 02/08/2021	End of Test Date: 23/08/2021	

PART A - PARTICULARS OF THE SAMPLE SUBMITTED

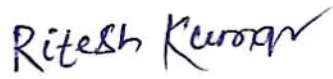

Sample description	Flexible Insulating Sleeve
Grade/ variety/ type/ class/ size etc.	Uses for Battery (sleeve with colour blue)
Declared values, if any	Nil
Code no., BIS seal and IO's sign. if any	Nil
Batch no., date of manufacture and Brand Name	Brand Name: "DEE FIVE"
Name & Address of Manufacturer (If required)	Nil.
Quantity	01 No. (10 meters)
Condition of the sample	OK
Reference specification (s)	IS 11654(Part 3/ Sec 1): 1988
Environmental conditions	Temperature (25±10)°C & Relative Humidity(45-75)%

PART-B: SUPPLEMENTARY INFORMATION

- If an Item is tested, acknowledging deviations from specified conditions as requested by customers, the results may be affected due to this deviation.
- Details of the drawings, graphs, tables, sketches or photographs as referred in the test report, if any:

Notes:

- This report is not to be reproduced except in full/partial without approval of the laboratory in writing.
- This report refers only to the particular sample detailed above.
- The results reported in this Test report are valid at the time of and under the stipulated conditions of measurement.

Tested by	Approved by
	
(Ritesh Kumar/.T.E)	(Chandra Prakash Chandan/Director)

Format No. - STCLAB/F/EL/06

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PART C- TEST RESULT

S. No	TEST WITH CLAUSE REFERENCE	SPECIFIED REQUIREMENT	RESULT	Remarks
1.	Density As per IS IS : 11654 (PART2)-1986	Density with ± 0.03 mm	3.3 g/cm ³	Pass
2	Resistance to soldering heat As per Cl. 7 of IS : 11654 (Part-2)-1986	The sleeving at a temperature of $27 \pm 5^\circ\text{C}$, the test shall be started within 60 min of the application of the flux. The horizontal part shall be held at the end at least 25 mm away from the bend. The vertical portion shall be immersed in the centre of a bath of molten solder so that 6 mm of the wire is immersed; a convenient way to achieve this is to mark the wire beforehand.	The horizontal part held at the end at least 25 mm away from the bend The vertical portion immersed in the centre of a bath of molten solder so that 6 mm of the wire is immersed	Pass
		The solder bath shall be not less than 25 mm in diameter and 12 mm deep and the temperature of the solder shall be maintained at $260 \pm 5^\circ\text{C}$ during the test.	No melting observed during test	Pass
3	Longitudinal Change As per Cl. 9 of IS : 11654 (Part-2)-1986	The specimen shall be supported horizontally on a medium on which it can recover freely. The supported specimen shall be maintained in an oven for the time and temperature specified	Three 100 mm long cut and place in oven with 100°C for 2 hrs 0.5 % change in length	Pass
4	Resistance to pressure at Elevated temperature As per Cl. 10 of IS : 11654 (Part-2)-1986	The assembly with mandrel but without the test specimen shall be conditioned for at least two hours before the test in the oven at $110 \pm 2^\circ\text{C}$	Temperature 110°C	Pass
		The assembly and test specimen shall then remain in the oven at the specified temperature for 60 ± 5 min	60 minutes specimen remain at temperature 110°C	Pass
		Difference between any two of the three values for the position of the indenter resting directly on the mandrel shall not be more than 0.02 mm.	Difference between any two of the three values for the position of the indenter resting directly on the mandrel not more than 0.02 mm and thickness change by 0.01%	Pass

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S. No	TEST WITH CLAUSE REFERENCE	SPECIFIED REQUIREMENT	RESULT	Remarks
5	Thermal stability of PVC Sleeving As per Cl. 10 of IS : 11654 (Part-2)-1986	Method A - The specimen must be sufficient to fill two of the specified test tubes to a depth of 50 mm and is formed by cutting the sleeving into pieces of maximum dimension 6 mm, slitting where necessary. The pieces of sleeving must not be deliberately compacted in the test tubes.	Method A used the test temperature with 200 minutes	Pass
6	Bending at low temperature As per Cl. 14 of IS : 11654 (Part-2)-1986	The specimen, shall be suspended for 60 ± 10 minutes in a chamber maintained at the temperature and, while still at the temperature, shall be wound without jerking for one complete turn in a close helix round a mandrel at the same temperature and having the diameter specified in Part 3.	60 minutes specimen remain at temperature - 65°C 8mm bore diameter	Pass
7	Tensile Strength and Elongation at Break for Full Section Sleeving As per Cl. 19 of IS : 11654 (Part-2)-1986	a. Tensile strength and elongation at break on full section sleeving the maximum load is between 15 percent and 85 percent of the maximum scale reading. The tensile strength calculated from the maximum load and the original area of cross-section and the result expressed in MPa.	tensile strength 16 MPa	Pass
		The cross-sectional area of the test specimen Elongation at break percent =	0.6%	Pass
8	Insulation resistance at room temperature after damp heat As per Cl. 22 of IS : 11654 (Part-2)-1986	Conditioned by free exposure for not less than 24 h to an atmosphere of 65±5 percent humidity at a temperature of 27 ± 2°C.	Conditioned with 65% RH & 27 °C temperature for 24 hrs	Pass
		Insulation Resistance at 500 Vdc	976 M ohm	Pass
9	Flame propagation As per Cl. 26 of IS : 11654 (Part-2)-1986	Method B - A length of approximately 660 mm (recovered in the case of heat shrinkable sleeving) shall be drawn on to a fine-steel wire 0.25 mm in diameter and 900 mm in length. The sleeving shall be closed at the top end to prevent a chimney effect.	Satisfactory	Pass

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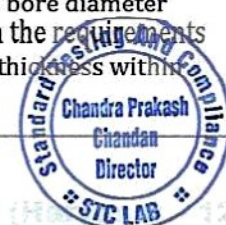
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S. No	TEST WITH CLAUSE REFERENCE	SPECIFIED REQUIREMENT	RESULT	Remarks
10	Transparency As per Cl. 28 of IS : 11654 (Part-2)-1986	The test specimen shall be approximately 100 mm long and shall be split longitudinally. It shall be immersed in water at $55 \pm 1^\circ\text{C}$ for $4 \pm 1/4$ h.	Not a transparent sleeve	Not Applicable
11	Corrosive volatiles As per Cl. 33 of IS : 11654 (Part-2)-1986	The total area of corrosion on the two mirrors within tubes containing the specimens exposed as a percentage of the original combined coated area of the two mirrors. Immerse the lower 50 mm of the test tubes in an oil bath at temperature and for the 16 hours at $120 \pm 2^\circ\text{C}$.	Satisfactory Immerse with 120°C for 16 hrs.	Pass
12	Thermal Endurance As per table 1 (xiv) of IS : 11654 (Part-3)-1986	The end point shall be either twice the initial value of secant modulus at 100 percent extension or half the initial elongation at break determined in accordance with Cl. 19 of IS : 11654 (Part-2)-1986. This test need not be repeated unless the manufacturer has made a significant change in the composition or method of production of the material.	Satisfactory	Pass
13	Flexibility As per Cl. 18 of IS : 11654 (Part-2)-1986	Number and Form of Test Specimens Three specimens shall be tested, each 150 mm in length.	150 mm of sleeve	Pass
		Conditioning - The test specimen shall be left loose on a flat surface in an ambient temperature of $27 \pm 5^\circ\text{C}$ for approximately 24 h.	24 hrs with temperature 30°C	Pass
		The mandrel shall be provided with means of rotating it through 270° . The weight shall be attached to the thread.	No deflection in scale in all three specimen	Pass
14	Colour fastness to light as Cl. 34 of IS : 11654 (Part-2)-1986	The original colour shall be clearly identifiable	colour clearly identifiable (Light Blue)	Pass
15	Dimensions as Cl. 3.2 of IS : 11654 (Part-3/sec 1)-1988	The sleeving shall comply with the appropriate requirements for tolerance on nominal bore diameter and with the requirements for wall thickness	Nominal bore diameter and with the requirements for wall thickness within limits	Pass

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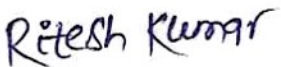


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S. No	TEST WITH CLAUSE REFERENCE	SPECIFIED REQUIREMENT	RESULT	Remarks
16	Breakdown Voltage - Cl. 3.2 of IS : 11654 (Part 3/sec 1)- 1988	Tests at Room Temperature	No breakdown during the test	Pass
		Tests at Elevated Temperature	No breakdown during the test	Pass
		Tests After Damp Heat	No breakdown during the test	Pass

PART D:-

REMARKS: Nil

Tested by	Approved by
 (Ritesh Kumar/.T.E)	  (Chandra Prakash Chandan/Director)

***** END OF TEST REPORT *****