



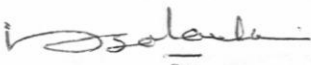


ELECTRICAL RESEARCH AND DEVELOPMENT ASSOCIATION

(Accredited by the National Accreditation Board for Testing and Calibration Laboratories, Govt. of India)
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TEST REPORT

SHEET 1 of 4

NAME & ADDRESS OF CUSTOMER M/s Diamond Cables Ltd., Phase-II, Village-Vadadala, Tal. Savli, Dist. Vadodara.	REPORT No. : ICAB/11/2044 DATE : 05-03-2007
	CUSTOMER REF. NO: Nil DATED : 30-12-2006
	DATE OF SAMPLE RECEIPT : 01-01-2007 DATES OF TESTING : 15-02-07 to 03-03-07
	SAMPLE DESCRIPTION 1 C x 35 Sq. mm + 25 Sq.mm Aerial bunched cable, 1.1 KV Grade Type of Insulation : XLPE Phase conductor: Aluminium, Class-2 Covered Messenger conductor-Class 2
TEST DETAILS As per sheet 2 of 4	TEST SPECIFICATION IS: 14255-1995
REMARK : The sample conforms to the requirements for all the mentioned tests.	
 PREPARED BY	 CHECKED BY
 APPROVED BY	
NOTE: 1. This report relates only to the particular sample received for testing in good condition at ERDA. 2. This report cannot be reproduced in part under any circumstances. 3. Replication of this report requires prior permission in writing from Director, ERDA 4. Only the tests asked for by the customer have been carried out.	



No 1584716

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REPORT NO. : ICAB/11/2044

SHEET 4 of 4

DATE : 05-03-2007

Sr. No.	Cl. No.	Tests	Requirement as per Specification	Obtained Value	Remarks
	iii)	Hot Set test (at $200 \pm 3^\circ\text{C}$ for 15 min.)			
	A]	Elongation under load, %	Max. 175	75	Conforms
	B]	Permanent elongation (set), %	Max. 15	Nil	Conforms
	iv)	Shrinkage test (at $130 \pm 3^\circ\text{C}$ for 60 minutes)			
	-	Shrinkage, %	Max. 4	<1	Conforms
	v)	Water absorption (gravimetric) (at $85 \pm 2^\circ\text{C}$ for 14 days)			
		Water absorbed, mg/cm^2	Max. 1	Nil	Conforms
4.	10.1.e	Thickness of Insulation, mm	Nom. Not less than 1.2/ Min. not less than 0.98	1.3/1.14	Conforms
5.	10.1.f	Insulation resistance			
	-	Volume resistivity, Ohm-cm			
	A]	at $27 \pm 2^\circ\text{C}$	Min. 1×10^{13}	4×10^{16}	Conforms
	B]	at $70 \pm 2^\circ\text{C}$	Min. 1×10^{11}	3×10^{15}	Conforms
6.	10.1.g	High Voltage Test -at room temperature	To withstand 3kV rms for 5 minutes for the test connection.	Withstood	Conforms

V. Salavala

Prepared by



[Signature]
Checked by

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REPORT NO. : ICAB/11/2044
DATE : 05-03-2007

SHEET 3 of 4

Sr. No.	Cl. No.	Tests	Requirement as per Specification	Obtained Value	Remarks
1.	10.1.a	TEST RESULTS Tests on Phase / Street Light conductor			
	i)	Tensile test	Not Applicable	-	-
	ii)	Wrapping test	Not Applicable	-	-
	iii)	Conductor Resistance (Corrected at 20° C, Ω/km)	Max. 0.868	0.863	Conforms
2.	10.1.b	Tests on Messenger conductor			
	i)	Breaking Load, kN (On Complete Conductor)	Min. 7.0	8.4	Conforms
	ii)	Elongation test	Not Applicable	-	-
	iii)	Conductor Resistance (Corrected at 20 °C, Ω/km)	Max. 1.38	1.27	Conforms
3.	10.1.c	Physical tests for XLPE Insulation			
	i) A]	Tensile strength, N/mm ²	Min. 12.5	20.9	Conforms
	B]	Elongation at break, %	Min. 200	568	Conforms
	ii)	After ageing in air oven (at 135 ± 3 °C for 168 hrs.)			
	A]	Tensile strength Variation, %	Max. ± 25	-3	Conforms
	B]	Elongation Variation, %	Max. ± 25	-1	Conforms

Vasolankar

Prepared by



[Signature]

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REPORT NO. : ICAB/11/2044

SHEET 2 of 4

DATE : 05-03-2007

TEST DETAILS :

Test Specification: IS: 14255-1995

Sr. No.	Cl. No	Test Particulars.
1.	10.1. a	Tests on Phase/Street light conductor
	i)	Tensile test
	ii)	Wrapping test
	iii)	Resistance test
2.	10.1. b	Tests on Messenger conductor
	i)	Breaking load
	ii)	Elongation test
	iii)	Resistance test
3.	10.1.c	Physical tests for XLPE Insulation
	i)	Tensile strength & Elongation at break
	ii)	Ageing in air oven
	iii)	Hot set test
	iv)	Shrinkage test
	v)	Water absorption (Gravimetric)
4.	10.1. e	Thickness of Insulation
5.	10.1. f	Insulation resistance (Volume Resistivity) test
6.	10.1. g	High Voltage test

V. Solanki
 Prepared by



[Signature]
 Checked by