



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small & Medium Enterprises
एमएसएमई परीक्षण केन्द्र
MSME TESTING CENTRE
चेन्नै - 600 032.
CHENNAI - 600 032.

Test Report for
Copper Coated Steel Rod

No. 19004576 R1 ULR
No:TC513519000004576P

Date 30.09.2019

Page 1 of 4

TEST REPORT

Name of the Customer Infinite Electrotech Pvt Ltd

Address No. 100, Kuthambakkam Road
Mevallurkuppam, Chettipedu
Chennai - 602 105

Customer Reference..... : Letter No.Nil Dt:13.09.2019

Job Sl. No. : 19004576 R1 ULR No:TC513519000004576P

Description of Samples..... : Copper Coated Steel Rod

Identifications..... : -

Date of Receipt..... : 18/09/2019

Sampling Procedure..... : Sample submitted by Customer

Graph / Figure, if any..... : Not Applicable

Note:

This Report pertains to the particular sample submitted for the test

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This Report Supercedes our earlier Report No.19004576 Dt:24.09.2019




Officer Incharge
Customer Cell
For Director



सत्यमेव जयते

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Test Report For :
Copper Coated Steel Rod
Certificate No : 1900 4576/R1

Date : 30-09-2019
Page : 2 Total No. of Pages : 4

ULR NO : TC51351900000 4576 P

TEST REPORT

Description of Sample : Copper coated steel Rod 17.2 mm Dia
Identification : ----

OBSERVATION OF TEST

Type of Test	Specified Value	Observed Value
1. Tensile Test		
a) Tensile Strength, (N/mm ²)	350 to 770	696
b) YS/TS Ratio	0.80 to 0.95	0.82
2. Bend Test	There should be no Sharp edges, cracks or peeling in the bent portion	No Sharp edges, cracks or peeling observed in the bent portion after the test on visual examination
3. Adhesion test	The coating shall show adherence to the parent metal & separation of the copper from the steel is not accepted.	Adherence to the parent metal observed. No separation of copper from steel observed when the sample was driven through two steel plate of 1.0 mm less than the diameter of specimen

Remarks: 1) For Test No.2, Angle of bend is 90° and Mandrel dia is 5φ where φ is the diameter of the sample

Above parameters are Non-Accredited parameters

Date of Test : 23-09-2019
Environmental Condition :
Temperature : 28.8 ° C
Humidity : 89 %
Type of Test : Tensile, Bend & Adhesion test
Procedure Followed : 62561-2 IEC: 2018
Test done by : S.Sadamadhavan



G.V.Ranga rao
Assistant Director (Met)

Authorised Signatory



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Test report for:
Copper Coated Steel Rod

Report No : 19004576R1
Date : 30.09.2019
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ULR NO. TC5135190004576P

Description of Sample /
Identification

: Copper Coated Steel Rod 17.2mm Dia meter

TEST RESULTS

Sl. No	Test conducted	Observed Value		
		1. 268	2. 262,	3. 274
01	*Coating thickness (Average) in microns			
02	*Cyclic Test conducted thrice as Three samples were subjected Spray of 5% Neutral Sodium Chloride solution for 2hours followed by humidity test for 24 hour	Requirement	Observation	
		Shall show No sign of Corrosion	No sign of corrosion	

Note: * Non Accredited Parameters.

Date of Test : 25/09/2019 to 30/09/2019
Environmental Condition :
Place of Testing : At Laboratory
Temperature, ° C : Ambient
Humidity (RH), % : Ambient.
Procedure Followed : As Per IEC 62561:1-2017
Test done by : G.V. Ramamurthy
Checked by : Pritendu Mal

Tested By


(G.V. RAMAMURTHY)
SLA (CHEM)



(PRITENDU MAL)
Assistant Director(Chem)
Authorised Signatory





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Test Report for
 Copper Coated steel Rod
 Report No : 19004576R1
 Date : 30.09.2019
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TEST REPORT

Description of Sample : Copper Coated steel Rod (17.2mm dia x1200mm)
 Samples 1, 2 &3 each of 1200 mm length for test .

Test Results

Sl. N.	Name of the Test	Specification Requirement	Actual Results
1.*	Electrical Resistivity test As per Cl. 5.2.5 & Cl. 4.4.1 Electrical Resistance before and after salt mist test	A sample length of Copper Coated steel Rod approximately 1.2 m long, should be used for the test. The resistance measurement should be taken over a 1 m (± 1 mm) distance, using micro ohm meter and the reading corrected to 20 °C, using appropriate correction factors. Maximum Electrical resistivity should be 0.25 µΩm for Copper coated steel as per Table 2 of IEC 62561-2:2018;	Electrical Resistance before and after salt mist test Sample each of 1000mm 1,2 & 3 Electrical resistivity checked using Current source & voltage drop method with two independent multimeters on each sample and the reading corrected to 20 °C, using appropriate correction factors and test results are tabulated in table 1

* In calculation of Electrical resistivity, area of rod calculated by measuring average diameter.

TABLE 1

Sample no.	1	2	3
Electrical Resistivity before salt mist test in µΩ m	0.122	0.099	0.099
Electrical Resistivity after salt mist test µΩ m	0.123	0.100	0.100

All are non-accredited parameters.

TEST PROCEDURE : IEC 62561-1:2017&IEC 62561-2:2018(As per customer requirement)
 DATE OF TEST : 25.09.2019 & 30.09.2019
 ENVIRONMENTAL CONDITION : Ambient
 PLACE OF TESTING : at Laboratory
 TEST DONE BY : D.Gopalakrishnan
 CHECKED BY : S.Anandh

D. Gopalakrishnan
 D.Gopalakrishnan
 Skilled Worker (Elect.)
 Tested



S. Anandh
 (S.Anandh)
 Skilled Worker (Elect)
 Authorised Signatory