



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जजसे कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि
Date of Issue

कोड नं
Code No
1576565926067

पृष्ठ
Page
1

पृष्ठों की संख्या
No of Pages
4

NTH(ER)/CH(P)/2019/00333

28/02/2020

जिसे जारी करना है

Issued To

पता

Address

CORRO PROTECTION ENGINEERING

107/B, D-BLOCK, BAGHAJATIN, P.O. JADAVPUR, KOLKATA-700032

ग्राहक का संदर्भ सं एवं दिनांक
Customer's Ref. No.

NIL

Date: 16/12/2019

पंजिका सं एवं दिनांक
Register No & Date

00333/NTH(ER)/CH(P)/19/12/2019

परीक्षण सामग्री का विवरण
Description of Test Item

Solventless Food Grade Epoxy (CORROPOXY- FGE 400)

परीक्षण सामग्री का पहचान
Identification of Test Item

Sample received in one tin container (base) & Plastic container (hardener) describe as solventless food grade epoxy(Corropoxy-FGE 400) Mfg: M/s Corro Protection engineering.

नमूना का विशिष्टि (यदि हो)
Product Specification (If any)

AWWA C-210-2015

नमूना प्राप्ति की तिथि
Date of Receipt of the Test Item

17/12/2019

कार्य सम्पादन की तिथि
Date(s) of Performance of Tests

From: 23/12/2019

To: 21/02/2020

व्यावहृत प्रणाली का पहचान
Method(s) used for Test

On the lines of AWWA C210-2015 and ASTM

नमूना प्रक्रिया जहाँ प्रासंगिक हो
Sampling Procedure where relevant

Sample is prepared by mixing Base and Hardener in the ratio of 3:1 by volume.

Tested By

Sona Ram Baskey

Checked By

Parbati Mandi

Approved By

Dr. Anath Bandhu Mondal



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र) National Test House (Eastern Region)

11/1, जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि
Date of Issue

कोड नं
Code No

पृष्ठ
Page

पृष्ठों की संख्या
No of Pages

NTH(ER)/CH(P)/2019/00333

28/02/2020

1576565926067

2

4

Sl. No.

Test Name

Test Result

Limit

1

Cure

Passes the test

25 duble rubs

2

Dry film thickness

20.3 mils (515 micron)

16 mils

3

Electrical Continuty
Inspection

Passes the test (458 volts/mil)

min 100 volts/mil, No holiday

4

Adhesion

1345.95 psi (9.28 Mpa)

800 psi minimum

5

Cathodic
Disbondment

7.5 mm

10mm max

Tested By

Sona Ram Baskey

Checked By

Parbati Mandi

Approved By

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027
11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि
Date of Issue
28/02/2020

कोड नं
Code No
1576565926067

पृष्ठ
Page
3

पृष्ठों की संख्या
No of Pages
4

NTH(ER)/CH(P)/2019/00333

Sl. No.	Test Name	Test Result	Limit
6	Dielectric Strength	Passes the test (453.6 volt/mil)	250 volt/mil min
7	Immersion and vapour phase 30 days, Delonised water	Satisfactory, no blistering, peeling or detachment of coated film from substrate was observed.	Shall pass
8	Immersion and vapour phase 30 days, Sulphuric Acid 1% by weight	Satisfactory, no blistering, peeling or detachment of coated film from substrate was observed.	Shall pass
9	Immersion and vapour phase 30 days, Sodium Hydroxide 1% by weight	Satisfactory, no blistering, peeling or detachment of coated film from substrate was observed.	Shall pass

Tested By

Sona Ram Baskey

Checked By

Parbati Mandi

Approved By

Dr. Anath Bandhu Mondal



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जजसे कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र



INTERIM/FINAL REPORT

Number of Copies issued Single

TEST CERTIFICATE

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि
Date of Issue

कोड नं
Code No

पृष्ठ
Page

पृष्ठों की संख्या
No of Pages

NTH(ER)/CH(P)/2019/00333

28/02/2020

1576565926067

4

4

Sl. No.

Test Name

Test Result

Limit

टिप्पणी
Note

Nil

In respect of test carried out sample meets the requirement of AWWA C210-15
Specification for Liquid- Epoxy Coatings and linings for Steel Water Pipe and Fittings.

कैफियत
Remarks

Tested By

Sona Ram Baskey

Checked By

Parbati Mandi

Approved By

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (Eastern Region)

11/1, जज्जेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

TEST CERTIFICATE

INTERIM/FINAL REPORT

Number of Copies issued

Single

परीक्षण प्रमाण पत्र सं.

Test Certificate No

NTH(ER)/CH(P)/2019/00334

जारी होने की तिथि

Date of Issue

25/02/2020

कोड नं

Code No

1576568173368

पृष्ठ

Page

1

पृष्ठों की संख्या

No of Pages

5

जिसे जारी करना है

Issued To

पता

Address

CORRO PROTECTION ENGINEERING

107/B, D- BLOCK, BAGHAJATIN, P.O. JADAVPUR, KOLKATA-700032

ग्राहक का संदर्भ सं एवं दिनांक

Customer's Ref. No.

NIL

Date: 16/12/2019

पंजिका सं एवं दिनांक

Register No & Date

00334/NTH(ER)/CH(P)/19/12/2019

परीक्षण सामग्री का विवरण

Description of Test Item

Solvent less Food Grade Epoxy

Brand name - CORROPOXY-FGE400,

Mfg by: M/s Corro Protection Engineering.

परीक्षण सामग्री का पहचान

Identification of Test Item

Sample received in a tin (Base-01X01 lt) & a plastic (Hardener-01X500 ml) container,

described as Solvent less Food Grade Epoxy (Base & Hardener) Brand name - CORROPOXY-FGE400,

Mfg by: M/s Corro Protection Engineering.

नमूना का विशिष्टि (यदि हो)

Product Specification (If any)

IS:16676-2017

नमूना प्राप्ति की तिथि

Date of Receipt of the Test Item

17/12/2019

कार्य सम्पादन की तिथि

Date(s) of Performance of Tests

From: 23/12/2019

To: 21/02/2020

व्यावहृत प्रणाली का पहचान

Method(s) used for Test

On the lines of IS:16676-2017

नमूना प्रक्रिया जहाँ प्रासंगिक हो

Sampling Procedure where relevant

Sample is prepared by mixing Base and Hardener In the ratio of 3:1 by volume.

Tested By

Milton Baidya

SA(Chemical)

Checked By

Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जज्जस कोर्ट रोड, अलीपुर, कोलकाता - 700.027

11/1, Judges' Court Road, Alipore, Kolkata - 700.027

परीक्षण प्रमाण पत्र

FORM NO: NTH/ALP/E/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि
Date of Issue

कोड नं.
Code No

पृष्ठ
Page

पृष्ठों की संख्या
No of Pages

NTH(ER)/CH(P)/2019/00334

25/02/2020

1576568173368

2

5

Sl. No.

Test Name

Test Result

Limit

1

Colour

That of Red Oxide

2

Electrical Insulation
(holddays)

Passes the test.(Pass upto 10 KV for
1.1 mm paint thickness.)

shall pass the test

3

Abraslon Resistance

109 mg.(CS-10/1000gm/1000cycle)

125mg Max

4

Recoating
properties

Satisfactory

5

Cathodic
Disbondment, mm

3 mm

6 mm max

Tested By

M Baidya

Milton Baidya

SA(Chemical)

Checked By

Parbati Mandi

Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जजसे कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/E/5



Number of Copies issued Single

परीक्षण प्रमाण पत्र सं.

Test Certificate No

NTH(ER)/CH(P)/2019/00334

जारी होने की तिथि

Date of Issue

25/02/2020

TEST CERTIFICATE

कोड नं

Code No

1576568173368

पृष्ठ

Page

3

INTERIM/FINAL REPORT

पृष्ठों की संख्या

No of Pages

5

Sl. No.

Test Name

Test Result

Limit

6	Thickness, dry film, microns	558 microns	Min. 400 microns
7	Adhesion test- Tape test	Passes the test	Passes the test
8	Adhesion test- Pull off	9.9 MPa	Min. 5 MPa
9	Immersion and vapour phase, 30 days a) De-Ionised water pass.	Satisfactory, No blistering, Peeling, or disbondment of coated film from the substrate was observed.	No blistering, peeling or detaching of coated film from substrate
10	Immersion and vapour phase, 30 days b) Sulphuric acid pass 1 percent by weight.	Satisfactory, No blistering, Peeling, or disbondment of coated film from the substrate was observed.	No blistering, peeling or detaching of coated film from substrate

Tested By

Milton Baidya

SA(Chemical)

Checked By

Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

FORM NO : NTH/ALP/E/5



राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1, जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

Number of Copies issued

Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं
Test Certificate No

जारी होने की तिथि

Date of Issue

कोड नं

Code No

पृष्ठ

Page

पृष्ठों की संख्या

No of Pages

NTH(ER)/CH(P)/2019/00334

25/02/2020

1576568173368

4

5

Sl. No.

Test Name

Test Result

Limit

11

Immersion and
vapour phase,30
days c) Sodium
Hydroxide pass 1
percent by weight

Satisfactory, No blistering, Peeling,
or disbondment of coated film from
the substrate was observed.

No blistering, peeling or
detaching of coated film from
substrate

12

Solvent Rub Test

Satisfactory (3.4% thickness
reduction obtained.)

Max.Thickness reduction 25
percent

13

Drinking water test

Vide Annexure-I

-

14

Condition

Satisfactory, as the material is free
from lumps, skins and becomes
homogeneous on stirring

shall be free from lumps,
skins and shall

15

Thinning

Satisfactory

-

Tested By

Milton Baidya

SA(Chemical)

Checked By

Parwati

Parwati Mandi

Scientist. B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Dr. Anath Bandhu Mondal

Scientist. B (Chemical)



सत्यमेव जयते

भारत सरकार

Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (Eastern Region)

11/1, जजसेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.

Test Certificate No

जारी होने की तिथि

Date of Issue

कोड नं

Code No

पृष्ठ

Page

पृष्ठों की संख्या

No of Pages

NTH(ER)/CH(P)/2019/00334

25/02/2020

1576568173368

5

5



Sl. No.

Test Name

Test Result

Limit

16

Consistency

Satisfactory, as stirring using mechanical device/power stirrer easily produces a smooth uniform paint suitable for application by appropriate method

Shall pass the test

टिप्पणी

Note

NII

कैफियत

Remarks

: In respect of tests carried out the sample meets the requirements of IS 16676-2017, specification for Solventless Liquid Epoxy System for Application on Interior and Exterior Surfaces of Steel Water Pipeline.

Tested By

Milton Baidya
SA(Chemical)

Checked By

Parbati Mandi
Sd/Officer

Approved By

Dr. Anath Bandhu Mondal
Sd/Officer



भारत सरकार

Government of India

FORM NO : NTH/ALP/F/5



राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (Eastern Region)

11/1, जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

TEST CERTIFICATE

Test Certificate No.	Date of Issue	Code No.	Page	No. of pages
NTH(ER)/CH(P)/2019/00334	25/02/2020	1576568173368	1	1

Annexure-I

Test Results

S.No	Tests	Results	Limit
1	pH (At 26.5 Deg C)	6.86	6.5-8.5
2	Turbidity, NTU	0.19	1
3	Total hardness (As CaCO ₃), mg/L	15.7	200
4	Chloride (As Cl), mg/L	6.5	250
5	Nitrate (As NO ₃), mg/L	0.5	45
6	Iron (As Fe), mg/L	0.09	0.3
7	Arsenic (As As), mg/L	Below 0.005	0.05
8	Fluoride (As F), mg/L	Below 0.01	1
9	Odour	Agreeable	Agreeable
10	Taste	Agreeable	Agreeable
11	Total Coliform (CFU/100ml)	Absent	Absent
12	Faecal Streptococci (CFU/100ml)	Absent	Absent

Tested by

*M Baidya*Milton Baidya
SA (Chemical)

Checked by

*P Mandi*Parbati Mandi
Scientist - SB (Chemical)

Approved by

*X Anand*Dr. Anath Bandhu Mondal
Scientist - SB (Chemical)



सत्यमेव जयते

TEST CERTIFICATE



भारत सरकार

उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय

Government of India

Ministry of Consumer Affairs, Food and Public Distribution

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (ER)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

Phone : 91-33-2479-3510 / 2449-8027 / 2479-1534, Fax : 91-33-2449-8026

email : nthkol-wb@nic.in



भारत सरकार
Government of India

FORM NO : NTH/ALP/F/5



राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजसेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027
11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं

Test Certificate No

जारी होने की तिथि

Date of Issue

कोड नं

Code No

पृष्ठ

Page

पृष्ठों की संख्या

No of Pages

NTH(ER)/CH(P)/2019/00247A

01/11/2019

1565000443507

1

4

जिसे जारी करना है
Issued To

CORRO PROTECTION ENGINEERING

पता

Address

107/B, Baghajatin, P.O. Jadavpur, Kolkata 700032

ग्राहक का संदर्भ सं एवं दिनांक

Customer's Ref. No.

NIL

Date: 29/07/2019

पंजिका सं एवं दिनांक

Register No & Date

00247/NTH(ER)/CH(P)/06/08/2019

परीक्षण सामग्री का विवरण

Description of Test Item

CORROTHANE-PU1000

परीक्षण सामग्री का पहचान

Identification of Test Item

One metal container marked as

"Polyurethane coatings (Base) corrothane PU1000" and another plastic container marked as "Polyurethane coatings (hardener), Corrothane PU1000" were received. The mixing ratio was mentioned on each container as 3:1 by volume. Mfg by M/s Corro protection Engineering.

नमूना का विशिष्टि (यदि हो)

Product Specification (If any)

AWWA-C-222-2018

नमूना प्राप्ति की तिथि

Date of Receipt of the Test Item

05/08/2019

कार्य सम्पादन की तिथि

Date(s) of Performance of Tests

From: 27/08/2019

To: 30/10/2019

व्यावहृत प्रणाली का पहचान

Method(s) used for Test

On the lines of AWWA-C-222-2018

नमूना प्रक्रिया जहाँ प्रासंगिक हो

Sampling Procedure where relevant

The sample was prepared by mixing base and hardener in the ratio of 3:1 by volume.

Tested By

Debanjana Mukherjee
Debanjana Mukherjee

SA(Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं

Test Certificate No

जारी होने की तिथि

Date of Issue

कोड नं

Code No

पृष्ठ

Page

पृष्ठों की संख्या

No of Pages

NTH(ER)/CH(P)/2019/00247A

01/11/2019

1565000443507

2

4

Sl. No.

Test Name

Test Result

Limit

1

Flexibility

Satisfactory. No cracking or delamination was observed.

No cracking and delamination

2

Impact Resistanse

9.81 N-m

8.5 N-m minimum

3

Abrasion
Resistance, CS17,
1000 rev, 1kg

98 mg

100mg loss maximum

4

Electrical Inspection

No holiday upto 300 volt/mil.

No holiday

5

Hardness Shore D

69

Minimum 65

Tested By

Debanjana Mukherjee
Debanjana Mukherjee

SA(Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.
Test Certificate No

जारी होने की तिथि

कोड नं

पृष्ठ

पृष्ठों की संख्या

NTH(ER)/CH(PY)/2019/00247A

Date of Issue

Code No

Page

No of Pages

01/11/2019

1565000443507

3

4

Sl. No.

Test Name

Test Result

Limit

6

Dielectric Strength

339 V/mil.

250 V/mil minimum

7

Adhesion Pull off to
steel

2030

1500 psi min to steel

8

Dry film thickness

751 micron.

635 microns minimum

9

Appearance

Smooth & uniform.

Smooth and uniform

10

Chemical
Resistance (30%
NaCl)

Satisfactory. The change in height,
width and weight is within 5% of
initial value. No blistering, cracking,
softening or any other forms of
deterioration was observed.

Maximum 5% change in mass,
length, width after 30days
immersion

Tested By

Debanjana Mukherjee
Debanjana Mukherjee

SA(Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेश कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं
Test Certificate No

जारी होने की तिथि
Date of Issue

कोड नं
Code No

पृष्ठ
Page

पृष्ठों की संख्या
No of Pages

NTH(ER)/CH(P)/2019/00247A

01/11/2019

1565000443507

4

4

Sl. No.

Test Name

Test Result

Limit

11

Chemical
Resistance (Diesel)

Satisfactory. The change in height, width and weight is within 5% of initial value. No blistering, cracking, softening or any other forms of deterioration was observed.

Maximum 5% change in mass, length, width after 30days immersion

12

Chemical
Resistance (10%
H₂SO₄)

Satisfactory. The change in height, width and weight is within 5% of initial value. No blistering, cracking, softening or any other forms of deterioration was observed.

Maximum 5% change in mass, length, width after 30days immersion

टिप्पणी
Note

: Cathodic disbondment, Water Absorption & Chemical Resistance (30% NaOH) will report after completion of test.

केंफियत
Remarks

: In respect of tests carried out the sample meets the requirements of AWWA C222-18 specification for Polyurethane coatings and linings for steel water pipe and fittings.

Tested By

Debanjana Mukherjee
Debanjana Mukherjee

SA(Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

TEST CERTIFICATE



भारत सरकार

उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय

Government of India

Ministry of Consumer Affairs, Food and Public Distribution

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (ER)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

Phone : 91-33-2479-3510 / 2449-8027 / 2479-1534, Fax : 91-33-2449-8026

email : nthkol-wb@nic.in



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027
11/1, Judges' Court Road, Alipore, Kolkata - 700 027

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

परीक्षण प्रमाण पत्र सं
Test Certificate No

NTH(ER)/CH(P)/2019/00248A

जारी होने की तिथि
Date of Issue
01/11/2019

परीक्षण प्रमाण पत्र
TEST CERTIFICATE

कोड नं
Code No
1564999637403

पृष्ठ
Page
1

INTERIM/FINAL REPORT

पृष्ठों की संख्या
No of Pages
5

जिसे जारी करना है
Issued To

पता
Address

CORRO PROTECTION ENGINEERING

107/B, Baghajatin, P.O. Jadavpur, Kolkata 700032

ग्राहक का संदर्भ सं एवं दिनांक
Customer's Ref. No.

NIL

Date: 29/07/2019

पंजिका सं एवं दिनांक
Register No & Date

00248/NTH(ER)/CH(P)/06/08/2019

परीक्षण सामग्री का विवरण
Description of Test Item

CORROTHANE - PU 1000.

परीक्षण सामग्री का पहचान
Identification of Test Item

Sample received in steel container(Base)& Plastic container
(Hardner) having name corrothane - PU 1000, Mfg By: M/s.
Corro Protection Engineering.

नमूना का विशिष्टि (यदि हो)
Product Specification (If any)

IS:16719-2018.

नमूना प्राप्ति की तिथि
Date of Receipt of the Test Item

05/08/2019

कार्य सम्पादन की तिथि
Date(s) of Performance of Tests

From: 27/08/2019

To: 30/10/2019

व्यावहृत प्रणाली का पहचान
Method(s) used for Test

On the lines of IS 16719:2018

नमूना प्रक्रिया जहाँ प्रासंगिक हो
Sampling Procedure where relevant

Sample was prepared by mixing base & hardener in the ratio of
3:1 by volume.

Tested By

Subhashree Mondal
Subhashree Mondal
SA(Chemical)

Checked By

Parbati Mandi
Parbati Mandi
Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal
Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)

National Test House (Eastern Region)

11/1 जज्जस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं

Test Certificate No

NTH(ER)/CH(P)/2019/00248A

जारी होने की तिथि

Date of Issue

01/11/2019

कोड नं

Code No

1564999637403

पृष्ठ

Page

2

पृष्ठों की संख्या

No of Pages

5

Sl. No.

Test Name

Test Result

Limit

1

Application
Properties

Satisfactory.

Shall pass the test

2

Recoating
Properties

Satisfactory. For solvent rub test
loss of DFT is 7.5%.

Shall pass the test

3

Consistency

Smooth & uniform.

-Smooth & Uniform

4

Lead Restriction

2.8 ppm.

90 ppm Max

5

Drying Time at 50
deg C Tack free

Less than 1.5 hrs.

1.5 hrs max

Tested By

Subhashree Mondal
Subhashree Mondal

SA (Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र

FORM NO : NTH/ALP/F/5



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं
Test Certificate No

NTH(ER)/CH(P)/2019/00248A

जारी होने की तिथि

Date of Issue

01/11/2019

कोड नं

Code No

1564999637403

पृष्ठ

Page

3

पृष्ठों की संख्या

No of Pages

5

Sl. No.

Test Name

Test Result

Limit

6

Thickness, Dry Film

800 micron.

Internal 500 micron external
700 micron minimum

7

Electrical Insulation
(Holiday)

Satisfactory. Passes the test.

Shall Passes the test

8

Adhesion Tape

Satisfactory. Passes the test.

Shall pass the test

9

Adhesion Pull off

13 MPa.

5.5 MPa Min

10

Immersion Vapour
phase 30 days,
Deionised water

Satisfactory. No blistering, peeling or
detaching of coated film from
substrate was observed.

No Blistering Peeling or
detaching of coated film from
substrate

Tested By

Subhashree Mondal

Subhashree Mondal

SA (Chemical)

Checked By

Parbati Mandi

Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र



INTERIM/FINAL REPORT

Number of Copies issued Single

TEST CERTIFICATE

पृष्ठ
Page
4

पृष्ठों की संख्या
No of Pages
5

परीक्षण प्रमाण पत्र सं
Test Certificate No

जारी होने की तिथि

कोड नं

Date of Issue

Code No

NTH(ER)/CH(P)/2019/00248A

01/11/2019

1564999637403

Sl. No.	Test Name	Test Result	Limit
11	Immersion Vapour phase 30 days, 1% H2SO4 By wt	Satisfactory. No blistering, peeling or detaching of coated film from substrate was observed.	No Blistering Peeling or detaching of coated film from substrate
12	Immersion Vapour phase 30 days, 1% NaOH By wt	Satisfactory. No blistering, peeling or detaching of coated film from substrate was observed.	No Blistering Peeling or detaching of coated film from substrate
13	Abrasion Resistance,	99 mg loss. (CS 17, 1000 cycle, 1 kg weight.)	100mg
14	Hardness Shore D	68	65 min
15	Impact Resistance	1 kg-m.	0.46 kg M

Tested By

Subhashree Mondal

SA (Chemical)

Checked By

Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal

Scientist- B (Chemical)



सत्यमेव जयते

भारत सरकार
Government of India

राष्ट्रीय परीक्षण शाला (पूर्वी क्षेत्र)
National Test House (Eastern Region)

11/1 जजेस कोर्ट रोड, अलीपुर, कोलकाता - 700 027

11/1, Judges' Court Road, Alipore, Kolkata - 700 027

परीक्षण प्रमाण पत्र



INTERIM/FINAL REPORT

Number of Copies issued Single

TEST CERTIFICATE

परीक्षण प्रमाण पत्र सं
Test Certificate No

NTH(ER)/CH(P)/2019/00248A

जारी होने की तिथि

Date of Issue

01/11/2019

कोड नं

Code No

1564999637403

पृष्ठ

Page

5

पृष्ठों की संख्या

No of Pages

5

Sl. No.

Test Name

Test Result

Limit

16

Water Absorption %
by wt

1.3

3.0 max

17

Flexibility (180 deg
6.25mm)Satisfactory. No cracking or
delamination was observed.

No cracking & delamination

टिप्पणी

Note

Cathodic disbondment test will be reported after completion of test.

टिप्पणी

Remarks

: In respect of tests carried out, the sample meets the requirements of IS 16719:2018 specification for Polyurethane Coatings for the interior and exterior of steel pipe and fittings.

Tested By

Subhashree Mondal
Subhashree Mondal

SA (Chemical)

Checked By

Parbati Mandi
Parbati Mandi

Scientist- B (Chemical)

Approved By

Dr. Anath Bandhu Mondal
Dr. Anath Bandhu Mondal

Scientist- B (Chemical)