

SPEED POST



काष्ठ विज्ञान एवं प्रौद्योगिकी संस्थान
INSTITUTE OF WOOD SCIENCE AND TECHNOLOGY

फील्ड स्टेशन, कोलकाता/ Field Station, Kolkata

(भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्)

(Indian Council of Forestry Research and Education)

(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय, भारत सरकार, की एक स्वायत्त निकाय)

(An Autonomous Body of Ministry of Environment, Forest and Climate Change, Govt. of India)

2/2, बिरन रॉय रोड(पश्चिम), सरसुना/2/2, Biren Roy Road(West), Sarsuna, कोलकाता-700061/Kolkata- 700 061



सं. FSK/Chem/TR/32/Resin/5953/23-24/104

दि.24.05.2023

सेवा में/To

M/s. Patina Chemicals

Vill-Gangarampur

P.O. Dakshin Alipur, P.S.Bishnupur

Dist-South 24 Pgs

West Bengal- 743 503

आदरणीय महाशय,

Dear Sir,

विषय : नमूना की परीक्षण रिपोर्ट

Sub : Test Report for Resin for Plywood as per IS 848:2006 and Fire Properties

संदर्भ : आपका पत्रांक दिनांक

Ref : Your Letter No. Nil Dated 06.04.2023

कृपया उपरोक्त पत्र का संदर्भ लें

Please refer to the above letter.

परीक्षण रिपोर्ट संलग्न है

Test Report is enclosed.

भवदीय,

Yours faithfully,

प्रभारी अधिकारी
Officer-in-Charge

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ई-मेल/e-mail: silchief@gmail.com, वेबसाइट/Website: http://iwst.icfre.gov.in

As per Government of India, Ministry of Environment, Forest and Climate Change, Order No. F.No. 16-1/2022-RT dated 22.10.2022,
Indian Plywood Industries Research and Training Institute (IPIRTI), Field Station, Kolkata, has been merged with Institute of Wood Science and Technology (IWST), Bengaluru



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TEST REPORT

Report Issued to:

M/s. Patina Chemicals
Vill-Gangarampur
P.O. Dakshin Alipur, P.S. Bishnupur
Dist-South 24 Pgs
West Bengal- 743 503

ULR- TC1019523000001039P

REPORT NO: FSK/Chem/Testing/Resin/5953/23-24
(Job Card No.)

DATED: 24.05.2023

PART – A: PARTICULARS OF THE SAMPLE SUBMITTED:

(a) Nature of Sample	:	Resin- FRM-111, FRM- 222, FRM- 333
(b) Grade/Variety/Type/Class/Size etc.	:	--
(c) Declared Values, if any	:	--
(d) Code No.	:	--
(e) Batch No. & Date of Manufacture	:	--
(f) Quantity	:	3Kg
(g) Date of Receipt	:	06.04.2023
(h) BIS Seal	:	--
(i) IO's Signature	:	--
(j) Any Other Information, Expiry date, if any	:	Declared as Plywood Mfg. Process- i) Treatment of core with 5% FRM- 111 iii) Add 3% FRM- 222 in PF Resin during glue formulation iii) Add 3% FRM- 333 in preservative solution for coating
(k) Date of commencement of testing	:	17.04.2023
(l) Date of completion of testing	:	23.05.2023

Authorized Signatory
Sample Cell-In-Charge

Tested by
Name: Dr. S.C. Sahoo
Designation: Scientist-E

Name: Amitava Sil
Designation: Officer-In-Charge

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कोलकाता- 700 061

N.B.

1. The test results are relevant to the sample received for testing. Endorsement of product is neither inferred nor implied.
2. Remnants of tested material if any will be retained for a period of 6 months only from the date of issue of test reports.
3. This report, in full or in part, shall not be published, advertised, used for commercial purpose or any legal action without our special permission in writing.

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REPORT NO: FSK/Chem/Testing/Resin/5953/23-24

DATED: 24.05.2023

1Kg each x 3 Nos (FRM-111, FRM- 222, FRM- 333) fire retardant additive samples was received from M/s. Patina Chemicals, Kolkata for testing of fire retardancy properties (Flame Penetration, Flammability and Rate of Burning) as per IS 5509:2000 by using declared plywood manufacturing conditions and concentration, test results are given below:

Sample Description : FRM-111, FRM- 222, FRM- 333

Sample Code No. : FSK/Chem/Testing/Resin/5953/23-24

Date of Receipt : 06.04.2023

Date of start analysis: 17.04.2023

Date of completion : 23.05.2023

Adhesive Formulation :		
Powder resin	: Modified PF Liquid- 200gms	Water : N.A.
Extender	: GNCP-08 gms	Hardener : N.A.
FRM-222	: 06 gms	
Flow time in B6 Cup (IS 3944:1982):	18 Seconds	Pot Life: More than 6hrs
Plywood Manufacturing Condition :		
Species of Timber used	: <i>Dipterocarpus</i> Sp. (Gurjan) face and back, <i>Eucalyptus</i> as core	Open Assembly Time: 4-5 Hrs
Thickness of veneers	: 1.8 mm	Hot press temperature: 135-140° C
Plywood Construction	: 09 ply	Hot press pressure : 14.0 Kg/cm ²
Moisture content of veneers	: 6.88 %	Hot press time : 14 minutes for 12mm ply
Spread	: 300-320 gms/mt ² (D.G.L)	

Process of Manufacturing as declared:

- Core Treatment : Core veneers were treated with 5% FRM-111 additive @70°C for 2hrs. before drying.
- Glue Formulation : FRM-222 (Fire Retardant Additive) 3% of the liquid resin was added during glue formulation along with other additives.
- Treatment of Plywood : Plywood was treated with preservative solution mixed with 3% FRM-333 coating @60-70°C.

Observation:

- Mixing uniformly with resin to prepare adhesive mix
- No reaction with resin
- No irritating smell and adverse effect while mixing with resin

Tested By:

Name: Dr. S.C. Sahoo

Designation: Scientist-E

Name: Amitava Sil

Designation: Officer-In-Charge

24/05/2023

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DATED: 24.05.2023

PART – B: TEST RESULT:

I. CHEMICAL TESTING

1. Plastic & Resins

(a). Resin

Sl. No.	Test Parameter	Test Method	Requirement as per IS 5509:2000	Results
1	2	3	4	5
1	Flammability, min	IS 1734:1983 Part-3	30	30
2	Flame Penetration, min	IS 1734:1983 Part-3	30	31
3	Rate of Burning, min	IS 1734:1983 Part-3	20	12

Tested By:
Name: Dr. S.C. Sahoo
Designation: Scientist-E

Name: Amitava Sil
Designation: Officer-In-Charge

24/05/2023

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