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भारतीय प्लाईवुड उद्योग अनुसंधान और प्रशिक्षण संस्थान
INDIAN PLYWOOD INDUSTRIES RESEARCH & TRAINING INSTITUTE

फील्ड स्टेशन कोलकाता / Field Station Kolkata

(भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय का स्वायत्त निकाय)
(Autonomous Body of the Ministry of Environment, Forests & Climate Change, Government of India)

२/२, बीरेन राय रोड (वेस्ट), सरसुना, कोलकाता - ७०० ०६१
2/2, Biren Roy Road (West), Sarsuna, Kolkata - 700 061

सं. / No. _____

दिनांक / Date _____

सं.KFS/Chem/Testing/Resin/UF/4495/17-18/1030

दि.09.02.2018

सेवा में/To

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

प्रिय महोदय,

Dear Sir,

विषय : नमूने के परीक्षण रिपोर्ट

Sub : Test Report for Extender Resin

संदर्भ : आपका पत्रांक दिनांक

Ref : Your Letter No. Nil dt. 25.07.17

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

संलग्न : क/क

Encl : a/a

प्रभारी अधिकारी
Officer-in-Charge

भारतीय प्लाईवुड उद्योग
Indian Plywood Industries
अनुसंधान और प्रशिक्षण संस्थान
Research & Training Institute
२/२, बीरेन राय रोड (पश्चिम)
2/2, Biren Roy Road (West)
कोलकाता-७०० ०६१/Kolkata-700 061



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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

TEST REPORT AS PER IS: 848-2006 [WITH AMENDMENT NO(s) 2]

REPORT NO: KFS/Chem/Testing/Resin/UF/4495/17-18
(Job Card No.)

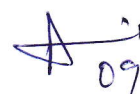
DATED: 09.02.2018

PART - A: PARTICULARS OF THE SAMPLE SUBMITTED:

(a) Nature of Sample	:	Extender Resin
(b) Grade/Variety/Type/Class/Size etc.	:	Type-UF
(c) Declared Values, if any	:	--
(d) Code No.	:	--
(e) Batch No. & Date of Manufacture	:	--
(f) Quantity	:	2kg
(g) Date of Receipt	:	25.07.17
(h) BIS Seal	:	--
(i) IO's Signature	:	--
(j) Any Other Information, Expiry date, if any	:	POLYMATE -111
(k) Date of commencement of testing	:	07.08.17
(l) Date of completion of testing	:	30.08.17


Authorized Signatory
Sample Cell-In-Charge


Authorized Signatory
Name: S.C. Sahoo
Designation: Scientist-D


Approved by:
Name: Amitava Sil
Designation: Officer-In-Charge

प्रभारी अधिकारी
आई.पी.आई.आर.टी.आई., फील्ड स्टेशन
२/२, बीरेन राय रोड (पश्चिम)
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: KFS/Chem/Testing/Resin/UF/4495/17-18

IS: 848-2006

Date: 09.02.2018

PART - B: SUPPLEMENTARY INFORMATIONS:

- (a) Reference to the sampling procedure, wherever applicable : N.A.
- (b) Supporting documents for the measurement taken and results derived like graphs, tables, sketches and/or photographs as appropriate to the test report if any (To be attached) : N.A.
- (c) Deviations from test methods as prescribed in relevant ISS/Work Instructions, if any : N.A.

Adhesive-mix Formulation with Polymate-111

Component	Parts by Weight (Pbw)						
	Level of Concentration (%)						
	0%	1%	2%	3%	4%	5%	6%
UF Resin Liquid 48% solid	200	200	200	200	200	200	200
Extender (Polymate-111)	0	2.0	4.0	6.0	8.0	10.0	12.0
NH ₄ Cl	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Liquid NH ₄	1.6	1.6	1.6	1.6	1.6	1.6	1.6

Properties of Adhesive-mix with Extender (POLYIMATE-111) in UF Resin

Properties	Level of Concentration (%)						
	0%	1%	2%	3%	4%	5%	6%
Flow time of adhesive mix in B6 flow cup in seconds	18/B ₄	8	9	11	14	15	17
Adhesive pH	6-6.5	6-6.5	6-6.5	6-6.5	6-6.5	6-6.5	6-6.5
Pot life (Hrs)	>6	>6	>6	>6	>6	>6	>6

Adhesive Formulation :

Powder/Liquid resin	: UF Liquid Resin-200 gms	Water : N.A.
Extender	: Polymate-111-08gms	Hardener : NH ₄ Cl-1.0gms, Liq-NH ₃ -1.6ml
Flow time in B6 Cup (IS:3944-1982): 13.5 Seconds		
Plywood Manufacturing Condition :		
Species of Timber used	: <i>Dipterocarpus sp.</i> (Gurjan)	Open Assembly Time : 30minutes
Thickness of veneers	: 1.6/1.6/1.6 mm	Hot press temperature : 110-115° C
Plywood Construction	: 03 ply	Hot press pressure : 10.5 Kg/cm ²
Moisture content of veneers	: 6.75 %	Hot press time : 6 minutes for 4 mm ply
Spread	: 250-300 gms/mt ² (D.G.L)	

Tested By:
Name: S.C. Sahoo
Designation: Scientist-D

Authorized Signatory
Name: S.C. Sahoo
Designation: Scientist-D

Approved by:
Name: Amitava Sil
Designation: Officer-In-Charge

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REPORT NO: KFS/Chem/Testing/Resin/UF/4495/17-18

IS: 848-2006

Date: 09.02.2018

PART - C: TEST RESULT:

Sl No.	Tests	Test Method	Requirement as per IS:848-2006	Results
1	2	3	4	5
1	BWP GRADE (Boiling water Proof) Six cycles: Each cycle consisting of 8 hours boiling in water and thereafter drying at 65±2°C for 16 hours.	Clause 4 and 7.3.2 Of IS :848 - 2006(Indicated in table-1)	No separation of plies at the edges and /or surface at the end of six cycles. On forcible separation of plies with knife, wood failure shall be predominant and shall be more than 75% for excellent bond and not less than 50% for pass standard. For less than 50% wood failure, the specimen shall be considered as failed.	N.A.
2	BWR GRADE (Boiling water Resistant) Three cycles: Each cycle consisting of 8 hours boiling in water and thereafter drying at 65±2°C for 16 hours.	Clause 4 and 7.3.2 Of IS :848 - 2006(Indicated in table-1)	No separation of plies at the edges and /or surface at the end of three cycles. On forcible separation of plies with knife, wood failure shall be predominant and shall be more than 75% for excellent bond and not less than 50% for pass standard. For less than 50% wood failure, the specimen shall be considered as failed.	N.A.
3	MR GRADE (Moisture Resistant) Three cycles: Each cycle consisting of 3 hours 60±2°C in water and thereafter drying at 65±2°C for 8 hours.	Clause 4 and 7.3.2 Of IS :848 - 2006(Indicated in table-1)	No separation of plies at the edges and /or surface at the end of three cycles. On forcible separation of plies with knife, wood failure shall be predominant and shall be more than 75% for excellent bond and not less than 50% for pass standard. For less than 50% wood failure, the specimen shall be considered as failed.	No separation of plies at the edges and /or surface at the end of three cycles. 60% Wood Failure Pass Standard
4	Acidity/ Alkalinity (pH of the cured film)	Annex- B (Clause - 7.4) of IS :848 -2006	Not less than 2.0	7.78

PART - D: REMARKS:

N.A.

Tested By:
Name: S.C. Sahoo
Designation: Scientist-D

Authorized Signatory
Name: S.C. Sahoo
Designation: Scientist-D

Approved by:
Name: Amitava Sil
Designation: Officer-In-Charge

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