



FIRE REACTION TEST REPORT DIN EN 13501-1:2010



(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) http://iwst.icfre.gov.in

Life Lifestyle For Page 1 of Monment

सं./SC/CTO/105/FSK-6100-6102/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

सेवा में/To M/s. Greenlam Industries Ltd. Panchalam Village, Melpettai Post Villupuran Dist, Tindivanam - 604307 Tamilnadu

आदरणीय महाशय, Dear Sir.

विषय : नमुना की परीक्षण रिपोर्ट

Sub : Test Report for Formaldehyde Emission as per JIS A 1460:2015

संदर्भ : आपका पत्रांक दिनांक

Ref: Your e\_mail Dated 10.04.2024 (Sample received on 15.04.2024)

उपरोक्त उल्लिखित संदर्भ में आपके द्वारा दिए गए नमूनों को संलग्न प्रतिवेदन में उल्लिखित मानकों के अनुसार, आईडब्ल्यूएसटी (भूतपूर्व इपिर्टि) के संबंधित प्रभाग से परीक्षण किया गया । Samples submitted by you vide above cited reference has been tested by the relevant Division of IWST (erstwhile IPIRTI) as per the standards mentioned in the attached report.

आपकी सेवा करने का यह अवसर सराहनीय है। यह सौभाग्य भविष्य में पाने की उम्मीद है। The opportunity to serve you is highly appreciated. Hoping to have the same privilege in future.

> भवदीय, Yours faithfully,

संलग्नक: क/क Encl: a/a Shalini P Rao

Chief Technical Officer
Institute of Wood Science and Technology
IPIRTI Campus, Bengaluru - 560 022

Head Office: ICFRE- Institute of Wood Science and Technology, Malleswaram Campus: 18th Cross, Malleswaram P.O., Bangalore – 560 003 Website: http://iwst.icfre.gov.in email: dir\_iwst@icfre.org Phone: 080-23341731/ 080-23340529 / 080- 2219 0100(Dir)

IPIRTI Campus Peenya: Near Platinum City Apartments, HMT Link Road, Off.Tumkur Road,
Yeshwantpur PO,Bangalore–560022 / 080-30534036(Genl)/080-30534021(SampleCell)

samplecell@ipirti.gov.in/samplecelliwst@gmail.com/samplecell.ipirti@gmail.com

Field Station: ICFRE- Institute of Wood Science and Technology 2/2, Biren Roy Road(West), Sarsuna, Kolkata-700 061 033-24983120 / samplecellfsk@icfre.org / oicfsk@icfre.org

As per Gol, MoEF&CC, Order No. F.No. 16-1/2022-RT dated 22:10:2022, Indian Plywood Industries Research and Training Institute (IPIRTI), has been merged with Institute of Wood Science and Technology (IWST), Bengaluru





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### TC1019524000001183P

### **TEST REPORT**

M/s. Greenlam Industries Ltd. Panchalam Village, Melpettai Post Villupuran Dist, Tindivanam - 604307 Tamilnadu

REPORT \(\frac{1}{3}\)./SC/CTO/105/FSK-6100/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

Ref: Your e mail Dated 10.04.2024

Date of performance of test: 03-06-2024 to 10.06.2024

# PART – A: PARTICULARS OF THE SAMPLE SUBMITTED:

(a) Nature of Sample

Plywood

(b) Grade/Variety/Type/Class/Size etc. :

1ft x 1ft

(c) Declared Values, if any

(d) Code No.

(e) Batch No. & Date of Manufacture

(f) Quantity

1No

(g) Date of Receipt

15.04.2024

(h) Seal

:

(i) IO's Signature

(j) Any Other Information

Brand Name- Mikasa Ply Sapphire

Shalini P Rao

Shalini P Rg

Chief Technical Officer Institute of Wood Science and Technology IPIRTI Campus, Bengaluru - 560 022

Head Office: ICFRE- Institute of Wood Science and Technology, Malleswaram Campus: 18th Cross, Malleswaram P.O., Bangalore – 560 003

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Yeshwantpur PO,Bangalore-560022 / 080-30534036(Genl)/080-30534021(SampleCell)

samplecell@ipirti.gov.in/samplecelliwst@gmail.com/samplecell.ipirti@gmail.com

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# TC1019524000001183P

ਚੰ./SC/CTO/105/FSK-6100/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

#### PART - B: SUPPLEMENTARY INFORMATIONS:

(a) Reference to the sampling procedure, wherever applicable

N.A.

(b) Supporting documents for the measurement taken

N.A.

and results derived like graphs, tables, sketches and/or photographs as appropriate to the test report

if any (To be attached)

(c) Deviations from test methods as prescribed in

N.A.

relevant ISS/Work Instructions, if any

# PART – C: TEST RESULT:

#### I. CHEMICAL TESTING

1. Wood & Wood Products (a). Plyboard

# Determination of formaldehyde emission by Desiccator method" as per JIS A 1460:2015.

1. Name and Address of the laboratory

: Tested at IWST Field Station Kolkata Chemistry

Laboratory

2. Type of board as received

: Plywood

3. Thickness, mm

: 18.25

4. Density, kg/m<sup>3</sup>

: 870

5. Moisture Content, %

: 7.62

6. Surface treatment

: Surface treatment was not provided on the sample : No edge treatment

7. Details of edge treatment 8. Cut off location

: 5cm away from all sides of the board

9. No of test specimens

10. Conditioning of test samples

: @20°C 65%RH

11. Temperature & Humidity of test environment: 20.3°C

: 13.06.2024

12. Date of the test report 13. Background formaldehyde level in the test : 0.0021 mg/L

environment, if determined

14. Formaldehyde emission in mg/L

: 0.414 mg/L

15. Formaldehyde emission in ppm : 0.414 ppm

Remarks: The emission limit as per JIS A5905 & JIS A5908 for  $F^{***}$  is  $> 0.4 \le 0.7$  mg/L for wood particle board. The formaldehyde emission value obtained is 0.414 mg/L. Hence, the sample conforms to the requirement of F\*\*\* as per JIS A5905 & JIS A5908 and as per Japanese Agricultural Standard (JAS) Formaldehyde emission for plywood.

(1) The test report is relevant to the sample received for testing.

samplecell@ipirti.gov.in/samplecelliwst@gmail.com/samplecell.ipirti@gmail.com

(2) Remnants of tested material if any will be retained for a period of 6 months only

Shalini P Rao Chief Technical Officer

Shelw PB

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033-24983120 / samplecellfsk@icfre.org / oicfsk@icfre.org As per Gol, MoEF&CC, Order No. F.No. 16-1/2022-RT dated 22.10.2022, Indian Plywood Industries Research and Training Institute (IPIRTI), has been merged with Institute of Wood Science and Technology (IWST), Bengaluru





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### **TEST REPORT**

M/s. Greenlam Industries Ltd. Panchalam Village, Melpettai Post Villupuran Dist, Tindivanam - 604307 Tamilnadu

REPORT \(\frac{\frac{1}}{3}\)/SC/CTO/105/FSK-6101/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

Ref: Your e\_mail Dated 10.04.2024

Date of performance of test: 03-06-2024 to 10.06.2024

# PART – A: PARTICULARS OF THE SAMPLE SUBMITTED:

(a) Nature of Sample

Plywood

(b) Grade/Variety/Type/Class/Size etc. :

1ft x 1ft

(c) Declared Values, if any

20000

(d) Code No.

(e) Batch No. & Date of Manufacture

•0

(f) Quantity

1No

(g) Date of Receipt

15.04.2024

(h) Seal

S20000

(i) IO's Signature

(j) Any Other Information

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Brand Name- Mikasa Ply Marine Blue

Shalini P Rao

Shalin P B

Chief Technical Officer
astitute of Wood Science and Technology
IPIRTI Campus, Bengaluru - 560 022

Head Office: ICFRE- Institute of Wood Science and Technology, Malleswaram Campus: 18th Cross, Malleswaram P.O., Bangalore – 560 003

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दि./Dated: 27.06.2024

# PART – B: SUPPLEMENTARY INFORMATIONS:

(a) Reference to the sampling procedure, wherever applicable

N.A.

(b) Supporting documents for the measurement taken

N.A.

and results derived like graphs, tables, sketches and/or photographs as appropriate to the test report

if any (To be attached)\ (c) Deviations from test methods as prescribed in

relevant ISS/Work Instructions, if any

N.A.

PART – C: TEST RESULT:

I. CHEMICAL TESTING

1. Wood & Wood Products (a). Plyboard

Determination of formaldehyde emission by Desiccator method" as per JIS A 1460:2015.

1. Name and Address of the laboratory

: Tested at IWST Field Station Kolkata Chemistry

Laboratory

2. Type of board as received

: Plywood

3. Thickness, mm

: 18.28

4. Density, kg/m<sup>3</sup>

: 908

5. Moisture Content, %

: 7.02

6. Surface treatment

: Surface treatment was not provided on the sample

7. Details of edge treatment

: No edge treatment

8. Cut off location

: 5cm away from all sides of the board

9. No of test specimens

: @20°C 65%RH

10. Conditioning of test samples

11. Temperature & Humidity of test environment: 20.3°C

12. Date of the test report

: 13.06.2024

13. Background formaldehyde level in the test : 0.0021 mg/L

environment, if determined

: 0.490 mg/L

14. Formaldehyde emission in mg/L 15. Formaldehyde emission in ppm

: 0.490 ppm

Remarks: The emission limit as per JIS A5905 & JIS A5908 for  $F^{***}$  is  $> 0.4 \le 0.7$  mg/L for wood particle board. The formaldehyde emission value obtained is 0.490 mg/L. Hence, the sample conforms to the requirement of F\*\*\* as per JIS A5905 & JIS A5908 and as per Japanese Agricultural Standard (JAS) Formaldehyde emission for plywood.

### Note:

(1) The test report is relevant to the sample received for testing.

(2) Remnants of tested material if any will be retained for a period of 6 months only

Chelin PB Shalini P Rao

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#### TC1019524000001185P

# TEST REPORT

M/s. Greenlam Industries Ltd. Panchalam Village, Melpettai Post Villupuran Dist, Tindivanam - 604307 Tamilnadu

REPORT ゼ./SC/CTO/105/FSK-6102/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

Ref: Your e mail Dated 10.04.2024

Date of performance of test: 03-06-2024 to 10.06.2024

### PART – A: PARTICULARS OF THE SAMPLE SUBMITTED:

(a) Nature of Sample

Plywood

(b) Grade/Variety/Type/Class/Size etc. :

1ft x 1ft

(c) Declared Values, if any

(d) Code No.

(e) Batch No. & Date of Manufacture

(f) Quantity

1No

(g) Date of Receipt

15.04.2024

(h) Seal

(i) IO's Signature

(j) Any Other Information

Brand Name- Mikasa Ply Marine

Shalini P Rao

Shalin PB

Chief Technical Officer institute of Wood Science and Technology IPIRTI Campus, Bengaluru - 560 022

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### TC1019524000001185P

सं./SC/CTO/105/FSK-6102/GIL/2024/Tamilnadu

दि./Dated: 27.06.2024

#### 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

N.A.

and/or photographs as appropriate to the test report if any (To be attached)

(c) Deviations from test methods as prescribed in relevant ISS/Work Instructions, if any

N.A.

#### PART – C: TEST RESULT:

# I. CHEMICAL TESTING

1. Wood & Wood Products (a). Plyboard

# Determination of formaldehyde emission by Desiccator method" as per JIS A 1460:2015.

1. Name and Address of the laboratory

: Tested at IWST Field Station Kolkata Chemistry

Laboratory

2. Type of board as received

: Plywood

3. Thickness, mm

: 18.26

4. Density, kg/m<sup>3</sup>

: 897

5. Moisture Content, %

: 6.82

6. Surface treatment

: Surface treatment was not provided on the sample

7. Details of edge treatment

: No edge treatment

8. Cut off location

: 5cm away from all sides of the board

9. No of test specimens

10. Conditioning of test samples

: @20°C 65%RH

11. Temperature & Humidity of test environment: 20.3°C 12. Date of the test report

: 13.06.2024

13. Background formaldehyde level in the test : 0.0021 mg/L

environment, if determined 14. Formaldehyde emission in mg/L

: 0.746 mg/L

15. Formaldehyde emission in ppm

: 0.746 ppm

Remarks: The emission limit as per JIS A5905 & JIS A5908 for  $F^{**}$  is  $> 0.7 \le 2.1$  mg/L for wood particle board. The formaldehyde emission value obtained is 0.746 mg/L. Hence, the sample conforms to the requirement of F\*\* as per JIS A5905 & JIS A5908 and as per Japanese Agricultural Standard (JAS) Formaldehyde emission for plywood.

#### Note:

(1) The test report is relevant to the sample received for testing.

samplecell@ipirti.gov.in/samplecelliwst@gmail.com/samplecell.ipirti@gmail.com

(2) Remnants of tested material if any will be retained for a period of 6 months only

Shalin P B Shalini P Rao

Chief Technical Officer

Yeshwantpur PO, Bangalore - 560022 / 080-30534036 (Genl) / 080-30534021 (Sample Cell)

Field Station: ICFRE- Institute of Wood Science and Technology 2/2, Biren Roy Road(West), Sarsuna, Kolkata-700 061

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