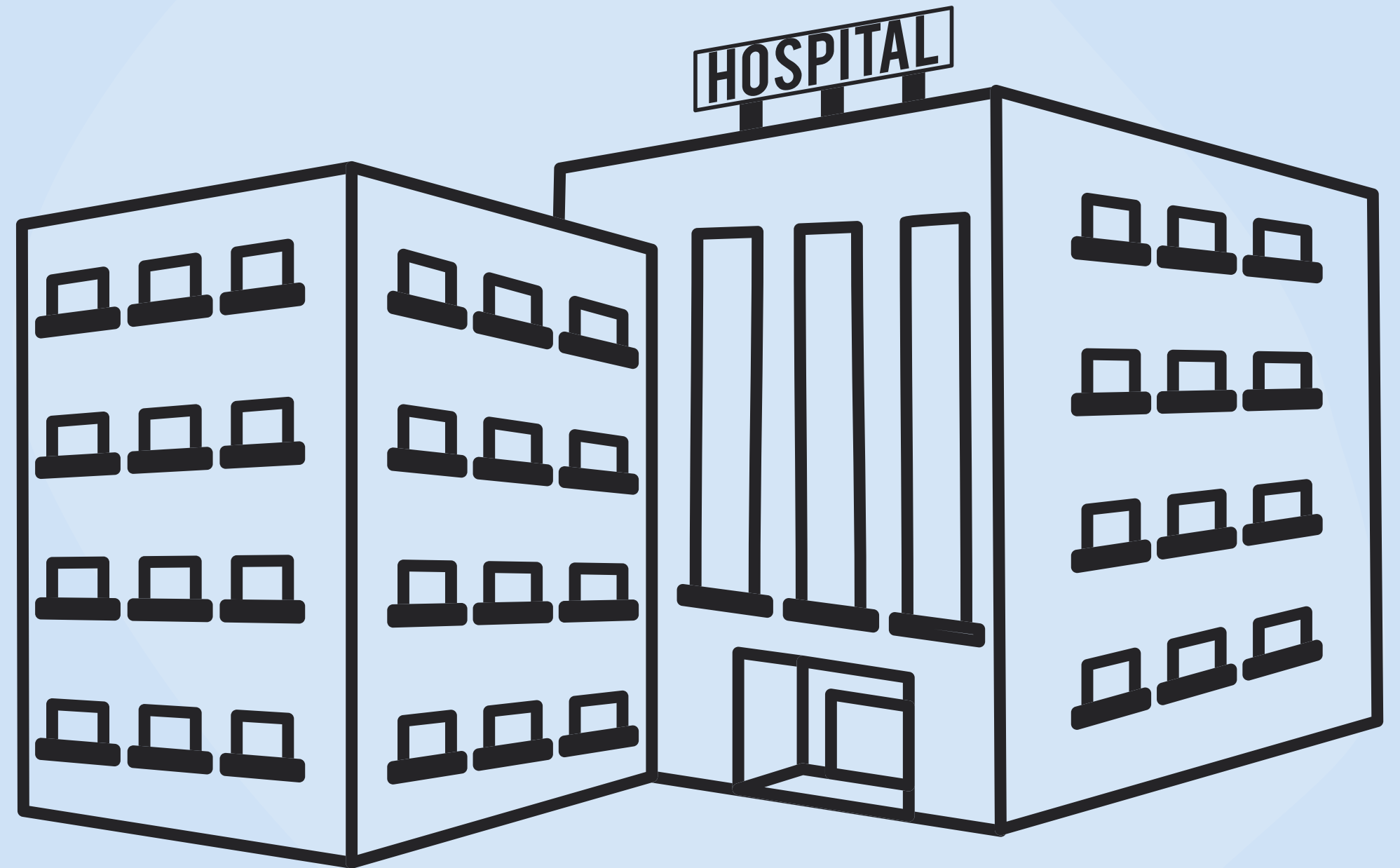


HEALTHIER HEALTHCARE SPACES

with
STRAWCTURE ECO



SPECIFICATIONS



>120 mins

FIRE RATING REQD.

"Globally, every 5th death due to fire is of an Indian"



24 instances of fire accidents in major hospitals in India in the last 12 months.
100+ patient deaths in a year

k=0.1

THERMAL INSULATION

Thermal comfort with a temp. differential of 3-4 degrees between outside and inside environment is preferred for healthcare facilities. Lower the k value, better the insulation.



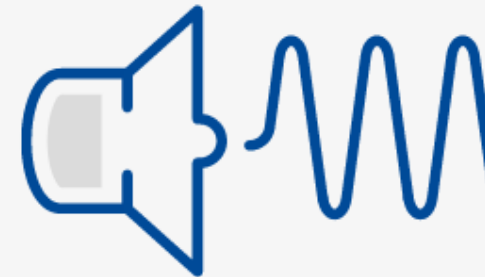
E1

VOC < 0.1 PPM

Mainly emanating from paints, furniture varnish, plaster and plastic, these VOCs contaminate the indoor air and cause lung infections, skin irritation, headaches in medical staff and in-house patients. To minimize this impact, low Voc products are to be used

40 dB+

ACOUSTIC INSULATION REQD .



The noise levels inside a hospital need to be maintained in order to instill a calm and serene environment for better healing. Also important to maintain doctor-patient confidentiality, silence in surgery rooms and restricting outside disturbances like traffic and horn-noises

RT<0.5

(REVERBERATION TIME)

>0.8

NRC VALUE

AgriBioPanel



Carbon
Negative



Fire
Resistant
2hrs



Low VOC



Moisture
Resistant



Acoustic
Insulation
40dB+



Termite
Proof

AGRIBIOPANEL

Features perfect for Healthcare Spaces

E1 GRADE

FORMALDEHYDE : <0.09 ppm
TOXICITY INDEX : 0.519



FIRE RATING 2 HR+

Straw has a high silica content which helps it in achieving high fire resistance of 2 Hr +



THERMAL INSULATION

k value = 0.0195

AgriBioPanels provide a temp. differential of up-to 4-5 degrees between exterior and interior air.



ACOUSTIC INSULATION

NRC 0.9 | STC 40dB+



The molecular arrangement of the straw along-with the ridges and perforations made on the surface of the panels combine to provide excellent acoustic insulation



HIGH STRENGTH
MOR 25 N/mm2



MOISTURE RESISTANT



TERMITE RESISTANT

DRYWALL PARTITIONS

(MADE OF AGRIBIOPANEL)

- ACOUSTIC & FIRE RATED WALLS
- BIGGER SIZE BOARDS PREVENTING WASTAGE OF MATERIAL
- 15-20 % LOWER FRAMING COST



**2 x 12 MM
AGRIBIOPANEL
10'x6'**

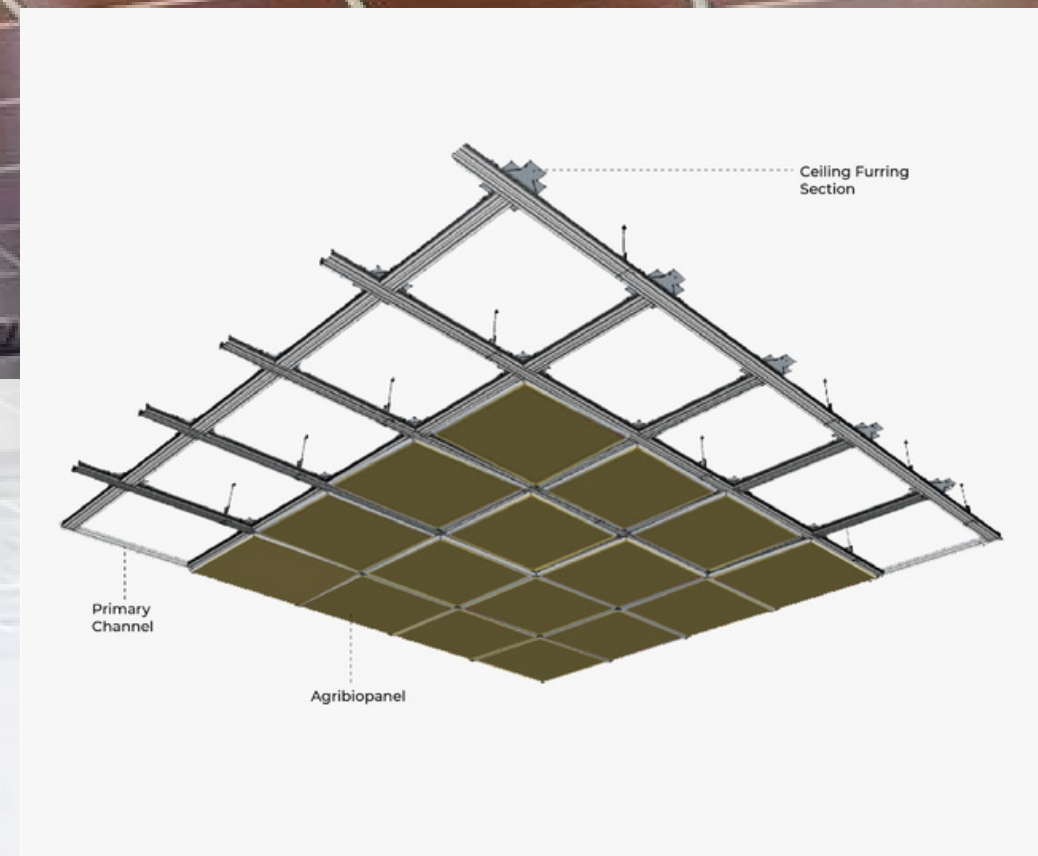
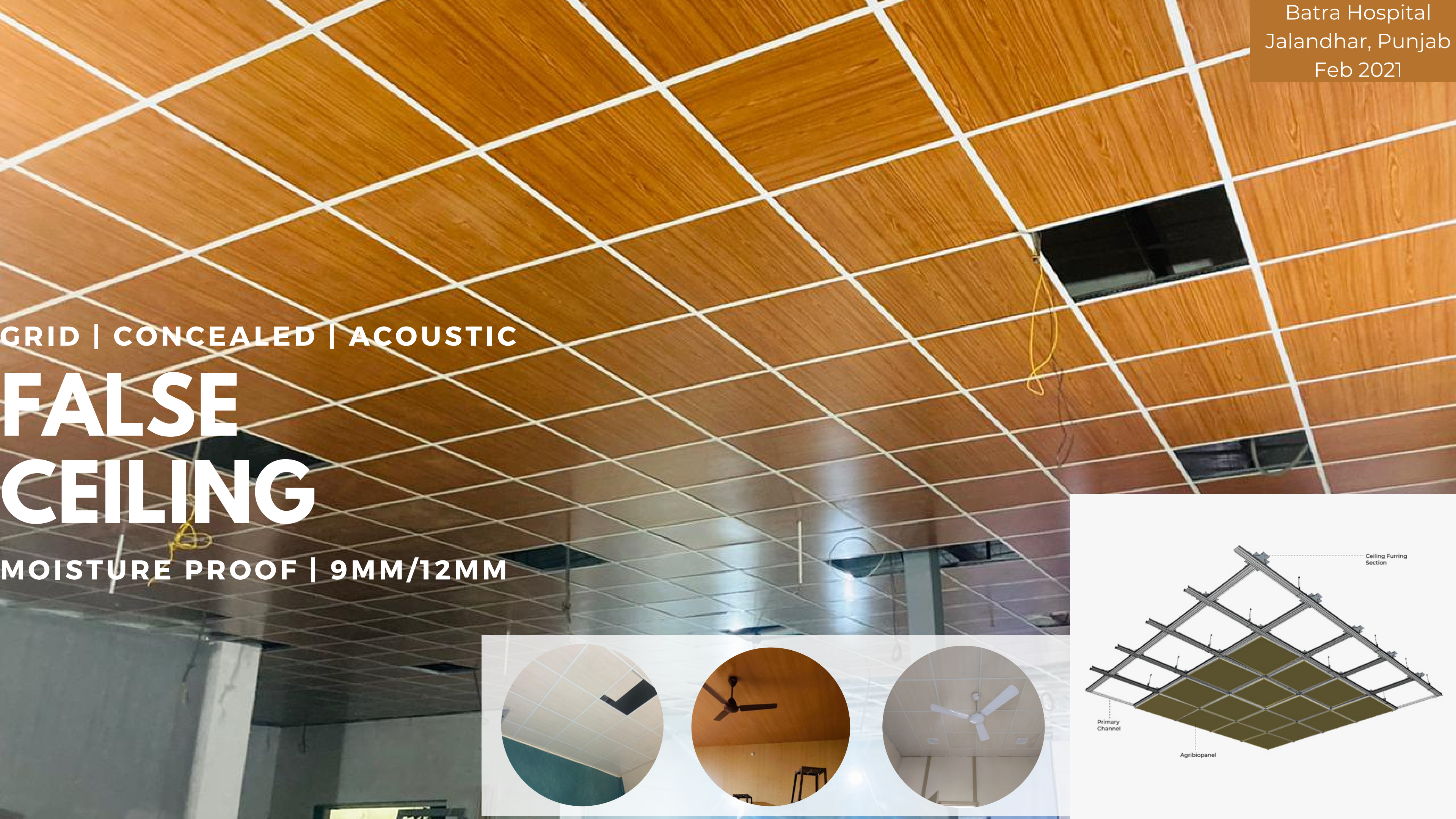


5x FASTER
COMPARED TO
CONVENTIONAL
METHODS

GRID | CONCEALED | ACOUSTIC

FALSE CEILING

MOISTURE PROOF | 9MM/12MM



JUNE 2020

VISTEX HOSPITAL

PATNA, BIHAR

6000 sft facility
constructed in
under 80 days.





DRYWALL
PARTITIONS



FALSE CEILING



FIRE DOORS



FEB 2021
5000 sft



काष्ठ कम्पोजिट जाँच एवं मूल्यांकन केन्द्र
Center for Testing And Evaluation of Wood Composites
भारतीय प्लाईवुड उद्योग अनुसंधान एवं प्रशिक्षण संस्थान
INDIAN PLYWOOD INDUSTRIES RESEARCH & TRAINING INSTITUTE
(भारत सरकार, पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय का स्वायत्त संस्थान)
(Autonomous Body of the Ministry of Environment, Forests & Climate Change, Govt. of India)
पोस्ट बैग सं. 2273, तुमकुर रोड, बंगलूर - 560 022
Post Bag No. 2273, Tumkur Road, Bangalore-560 022
जनरल/General: +91-80-2839 4231/32/33, 3053 4000-4001; फैक्स/Fax: +91-80-3053 4008; तार/GRAMS : IPIRTI
e-mail : samplecell@ipirti.gov.in, Websites : http://www.ipirti.gov.in; http://www.bamboocomposites.com



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TC917821000000247F

सं./No. JD/EIL/0125/Chem-247F/2021/Pune

Date: 23.04.2021

Table 1: Toxicity index of Eco board (Eco Board) sample (Average gas concentration of 2 readings)

Gases	Concentration in ppm For mass of 1.04 gms C _i (ppm)	Concentration of gas considered fatal to man for a 30 minute exposure time C _f (ppm)	Toxicity index value
Carbon monoxide (CO)	15 (Correction factor 0)	4000	0.361
Ammonia (NH ₃)	0	750	0.000
Hydrogen chloride (HCl)	0	500	0.000
Sulphur dioxide (SO ₂)	0.1	400	0.024
Nitrous oxide (NO ₂)	0.1 (Correction factor 0)	250	0.038
Hydrogen cyanide (HCN)	0	150	0.000
Hydrogen fluoride (HF)	0.1	100	0.096
TOTAL TOXICITY INDEX for 7 gases listed above for 100 gms sample	-	-	0.519

Result: The toxicity index of the material for 7 gases enlisted by client is found to be 0.519 for 100 gm sample.

OBSERVATIONS: During the test period or burn time for 120 seconds, it was observed that the flame spread was very low and no fumes were observed. Within 120 seconds the flame on the sample also arrested. No burning observed in the sample beyond 120 seconds. Charring of the sample with complete ash formation was noticed. Dripping of material or erratic burning was not observed. The entire mass was charred during the test duration.

TOXICITY INDEX

Note: The test report is relevant to be sample received for testing.



99, Badli Industrial Area,
Phase-2, New Delhi 110042
Ph. : +91 11 49491400
E-mail : mail@sigmatest.org
web : www.sigmatest.org



TESTING OF FOOD | WATER | CHEMICALS | PETROLEUM PRODUCTS | BUILDING MATERIAL | ENVIRONMENT

TEST CERTIFICATE

(This certificate is not valid without a hologram)

Page : 1/2

Sample : Wood Raw 18mm HDUMR Panels Report No. : 21003797

Sample Description : Wood Raw 18mm HDUMR Panels

Customer Ref : Nil Report Issue Date: 23/02/2021

Customer Name & Address : Strawcture Eco Pvt. Ltd.
52, Hari Om Nagar Colony, Phase-2, Civil Lines,
Bichhiya, Gorakhpur, Uttar Pradesh - 273001

Job Code : STRC/21003797

Sample Received On : 01/02/2021

Date of Testing : 01/02/2021-22/02/2021

Sample Quantity : 4 Pcs.

Sample Condition: Packed properly

S. No.	Test Parameters	Test Result	Test Method
1.	Density, (kg/m ³)	733	IS: 2380 (P-3) 1977
	Variation from mean density, %	6.0	--
2.	Moisture Content, (%)	9.8	IS: 2380 (P-3) 1977
	Variation from mean moisture, %	No variation	--
3.	Water Absorption, (%)	--	IS: 2380 (P-16) 1977
	(a) After 2 h soaking	15.8	--
	(b) After 24 h soaking	43.0	--
4.	Modulus of Rupture, (N/mm ²)	--	IS: 2380 (P-4) 1977
	Average	17.82	--
	Minimum Individual	16.70	--
5.	Modulus of Elasticity, (N/mm ²)	--	IS: 2380 (P-4) 1977
	Average	1508	--
	Minimum Individual	1407	--
6.	Internal Bond, (N/mm ²)	--	IS: 2380 (P-5) 1977
	Average	1.15	--
	Minimum Individual	1.12	--
7.	Internal Bond, (N/mm ²), (a) After Cyclic Test	--	IS: 2380 (P-5) 1977 & IS: 2380 (P-19) 1977
	Average	0.77	--
	Individual	0.74	--
8.	Internal Bond, (N/mm ²), (B) After accelerated water resistance test	--	IS: 2380 (P-5) 1977 & IS: 2380 (P-20) 1977
	Average	0.60	--
	Individual	0.59	--
9.	Screw Withdrawal Strength, (N)	--	IS: 2380 (P-14) 1977
	(a) Face	1212	--



MECHANICAL PROPERTIES



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web : www.sigmatest.org



TESTING OF FOOD | WATER | CHEMICALS | PETROLEUM PRODUCTS | BUILDING MATERIAL | ENVIRONMENT

TEST CERTIFICATE

(This certificate is not valid without a hologram)

Page : 2/2

Sample : Wood Raw 18mm HDUMR Panels Report No. : 21003797

Sample Description : Wood Raw 18mm HDUMR Panels

Customer Ref : Nil Report Issue Date: 23/02/2021

S. No. Test Parameters Test Result Test Method

10.	Dimensional Stability Test, (%)	0.11	IS: 2380 (P-18) 1977
-----	---------------------------------	------	----------------------

**** End of Report ****



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Phase-2, New Delhi 110042
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web : www.sigmatest.org



TESTING OF FOOD | WATER | CHEMICALS | PETROLEUM PRODUCTS | BUILDING MATERIAL | ENVIRONMENT

TEST CERTIFICATE

(This certificate is not valid without a hologram)

Sample: High Density Moisture Resistant Biopanel 25 mm Thick
Sample Description: High Density Moisture Resistant Biopanel 25 mm Thick

Ref. No.: Nil
Issued To: STRAWCTURE ECO PVT. LTD.
52, Hari Om Nagar Colony,
Phase-2, Civil Lines, Bichhiya,
Gorakhpur, Uttar Pradesh-273001.

Report No: 21004289
Report Issue Date: 13/05/2021
Job Code: STRC/21004289
Date of testing: 26/04/2021-13/05/2021
Sample Received On: 26/04/2021
Sample Qty.: 12 Pcs.
Page 1 of 3

Client: SELCO FOUNDATION, 690, 15TH Cross, 2ND Phase, J.P.Nagar, Bangalore-560078.

S. No.	Test Parameter(s)	Result	Test- Method
A. Fire Resistance Properties			
A1.	Fire Rating	Class B1	DIN 4102-1 & DIN 4102-16
A2.	Flammability Test	--	UL 94
A2.1	Classification	94HB 94V-0	--
A2.2	Rate of Burning, (inch/min)	0.09	Do not start to burn within 10 seconds.
A3.	Fire Proof	Combustibility Property	AS 1530.1-1994
B. Physical Properties			
B1.	Breaking Load, (MPa)	--	IS:2542 (Part-2/Sec-4)-1981
B1.1	Transverse	3730	--
B1.2	Longitudinal	3700	--

FIRE RATING

AI. Test Required: Determination of Fire Rating

Test Method: DIN 4102-1 & DIN 4102-16

Testing Period: 26.04.2021 to 13.05.2021

Temperature Conditions: Dry the sample at 105°C for six hours.

Dimensions of the Specimen: 305mm*50mm*25mm

Flame Application	Vertical			Horizontal		
	Trail 1	Trail 2	Trail 3	Trail 1	Trail 2	Trail 3
Ignition Time, (s)	55.25	54.98	56.25	62.34	61.98	62.18
Maximum flame height in 20s, (mm)	2.14	2.08	2.02	1.92	1.98	1.96
Fire ceased after, (s)	46.23	46.15	46.58	73.25	72.56	72.15

Result: The Fire Designation as per DIN 4102-1 is **Class B1 (Self-Extinguishable)**.

A2. Test Required: Determination of Flammability Test.

Test Method: UL 94

Testing Period: 26.04.2021 to 13.05.2021

Temperature Conditions: Dry the sample at 105°C for six hours.

Dimensions of the Specimen: 305mm*50mm*25mm

S. No.	Flammability Test	
	A2.1 Classification	A2.2 Rate of Burning, (inch/min)
1.	94HB	0.09
2.	94V-0	Do not start to burn within 10 seconds.



KELVN LABS
(AN ISO 9001:2015 CERTIFIED LABORATORY)
AN ISO/IEC-17025:2017 (NABL) ACCREDITED LABORATORY



Celestial Building, Plot. No.59,Road No.12,Ground Floor, TSIIIC Tech Park, IDA Nacharam, Hyderabad-500076, Telangana.
Email : kelvnlabs@gmail.com, www.kelvnlabs.com

TEST REPORT

Issued to: M/S EcoBoard Industries Ltd,
65/1-A, Akarshak Building, Opp Nal Stop,
Karve Road, Pune,
Maharashtra, 411004

Report No: KL/055/2020-21
Date: 18.06.2020

Work Order No: Nil.

Tests required	Compression Strength and Thermal Conductivity.
Sample Particulars	EcoBoard & Dry Air Sandwich of 48mm.
Sample Quantity	01 No.
Date of receipt of samples	12.06.2020.
Date of starting of analysis	14.06.2020.
Date of completion of analysis	18.06.2020.
Samples Conditioning	Nil.
Testing Room Conditions	23±2°C, 50±5% RH.

S.No.	Test Parameter	Test Method	Test Result
1.	Thermal Conductivity	ASTM C518	0.0195 W/m-k
2.	Compression Strength @10% Deflection	ASTM D695	1.74 Kg/cm ²

- Note:
- Samples condition at receipt: Found ok.
 - Test Method: As agreed with the customer.
 - This report shall not be reproduced except in full without the approval of the laboratory.
 - This report pertains to the samples submitted.

THERMAL INSULATION

CERTIFICATES TEST