

### TEST REPORT

Test Report Issued To:

**BALAJI ACTION BUILDWELL**

G-11, UDYOG NAGAR, MAIN ROHTAK ROAD, NEW DELHI, DELHI, INDIA, 110041,

Test Report No:

D201003041/D201003041-10

Date of Issue:

22-Oct-2020



Sample Booking/Receipt Date:

03-Oct-2020

Date of Start of Testing:

17-Oct-2020

Date of Completion of Test:

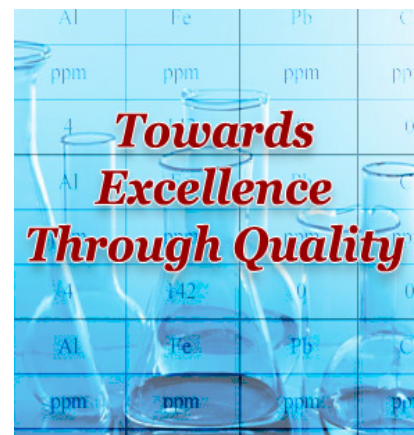
17-Oct-2020

Customer Relationship Number

24645

**Sample Description :**

PRE-LAMINATED ENGINEERED PANEL, PRODUCT NAME-ACTION TESA – BOILO HDF BOARD



Customer Reference No :

Kind Attention :

MR.RAJESHWAR NAIR

E-Mail:

rnair@actiontesa.com

Contact No:

7303394606

Sample Condition :

GOOD

Sample Quantity (Approx) :

1

Sample Size (Approx) :

-

SAMPLE NOT DRAWN BY OUR LABORATORY. THE RESULTS RELATE ONLY TO THE ITEMS TESTED

Report Issued by

Authenticity of report can be verified by mail at [verification@spectrolab.in](mailto:verification@spectrolab.in)

This is a Digitally Signed Report and hence doesn't require Physical Signature.

Spectro Analytical Labs Limited S-1, GNEPIP, Surajpur Industrial Area,Phase-V, Kasma, Greater Noida-201308 (India)

Phone : +91-120-2341252,2341251 || URL : [www.spectro.in](http://www.spectro.in) || Email: [care@spectro.in](mailto:care@spectro.in)

BIS & DDA Approved, ISO 9001:2015, ISO 14001:2015 & ISO 45001:2018 Certified Laboratory

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## TEST REPORT FOR DETERMINING THE FLAME SPREAD AND SMOKE DEVELOPED INDEX

### Test Sponsor:

#### Balaji Action Buildwell

G-11, Udyog Nagar, Main Rohtak Road,  
New Delhi, India, (110041)

### Product Name:

Pre-Laminated Engineered Panel,  
Product Name- Action Tesa – Boilo HDF Board



### Test Standards:

ASTM E84-2020; Standard Test Method for Surface Burning Characteristics of Building Materials.

### Testing Laboratory:

#### Spectro Analytical Labs Limited

S-1 GNEPIP, Surajpur Industrial Area  
Kasna, Greater Noida, Phase – V  
Gautam Budha Nagar (U.P.)  
Pin Code: 201308  
Ph: 0120-2341251/52

### Specimen Verification:

Length : 2440 mm  
Width : 600 mm  
Thickness : 12 mm

**Sample Preparation:** The sample was 12mm in thickness, 600 mm in width and 2440 mm in length. Approx. 4 numbers of samples were used to spread over the tunnel to form the requisite specimen length. Prior to the testing, the sample was conditioned to constant weight at a temperature of  $73 \pm 5^\circ\text{F}$  ( $23 \pm 3^\circ\text{C}$ ) and a relative humidity of  $50 \pm 5\%$ . During testing the sample was not self-supporting.

Analyst Signature



Authorised Signatory

## Results and Discussion

### Flame Spread Result

Calculated Flame Spread (CFS)	6.37
Flame Spread Index	6

### Smoke Developed Result

Calculated Smoke Developed	77.57
Smoke Developed Index	80

**Result: Class 1 as per ASTM E 84.**

### Classification Requirement

	Flame Spread Index	Smoke Development
Class 1 or A	0 - 25	450 Maximum
Class 2 or B	26 - 75	450 Maximum
Class 3 or C	76 - 200	450 Maximum

## Correction Factor

### CORRECTION FACTOR FOR CALCULATING FLAME SPREAD INDEX

- If this total area ( $A_T$ ) is less than or equal to 97.5 ft<sup>2</sup> then  
The flame spread index shall be  $FSI = 0.515 * A_T$ .
- If the total area ( $A_T$ ) is greater than 97.5 ft<sup>2</sup> then  
The flame spread index shall be  $FSI = 4900 / (195 - A_T)$ .  
Here  $A_T$  represents Total Area i.e.  $A_T = A_1 + A_2$   
 $A_1$  = Area Under the curve where first peak is observed.  
 $A_2$  = Area just above the curve in the line of First peak point.

### CORRECTION FACTOR FOR CALCULATING SMOKE DEVELOPED INDEX

Smoke Developed (SD) is determined by dividing the total area under the obscuration curve by that of cement board and multiplying by 100. SD is then rounded to the nearest multiple of 5 if less than 200. SD values over 200 are rounded to the nearest multiple of 50.

**Smoke Developed Index** =  $\frac{\text{Area under the Obscuration Curve}}{\text{Area under the Red Oak Curve}} \times 100$

  
Analyst Signature



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# TEST REPORT

## Annexure A

### Flame Spread Data

Time(minutes)	Distance (Feet)
1	0.7
2	0.9
3	1.1
4	1.3
5	1.4
6	1.5
7	1.4
8	1.5
9	1.4
10	1.4

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### Flame Spread data

Calculated Flame Spread (CFS)	6.37
Flame Spread Index	6
Time to Ignition (sec)	8 Seconds
Maximum Flame Spread (Ft)	1.5 ft.
Area under the Flame Spread Curve (Ft. Min)	12.37 ft. min.

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### Smoke Data

Calculated Smoke Developed	77.57
Smoke Developed Index	80
Area under the Smoke Curve (Ft. Min)	57.30
Area under Red Oak Curve (Ft. Min)	73.87

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Analyst Signature

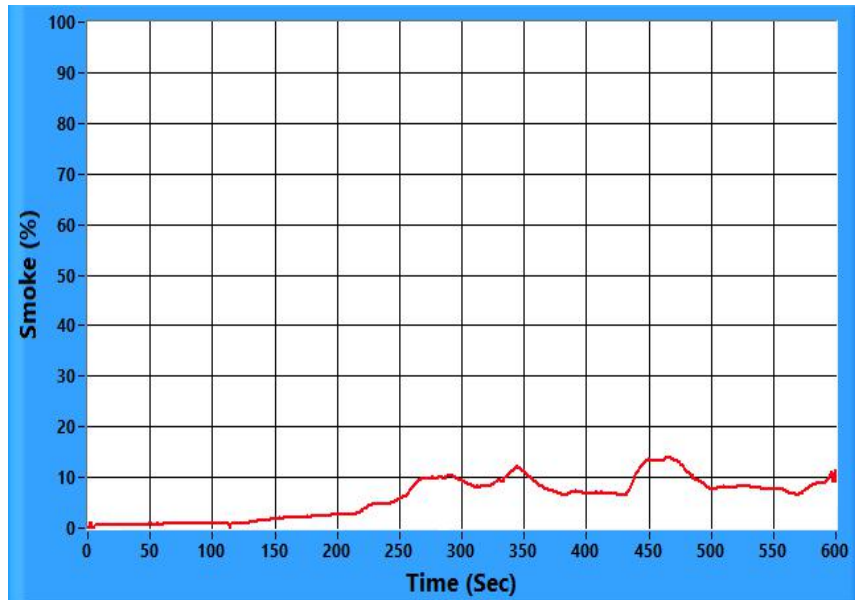
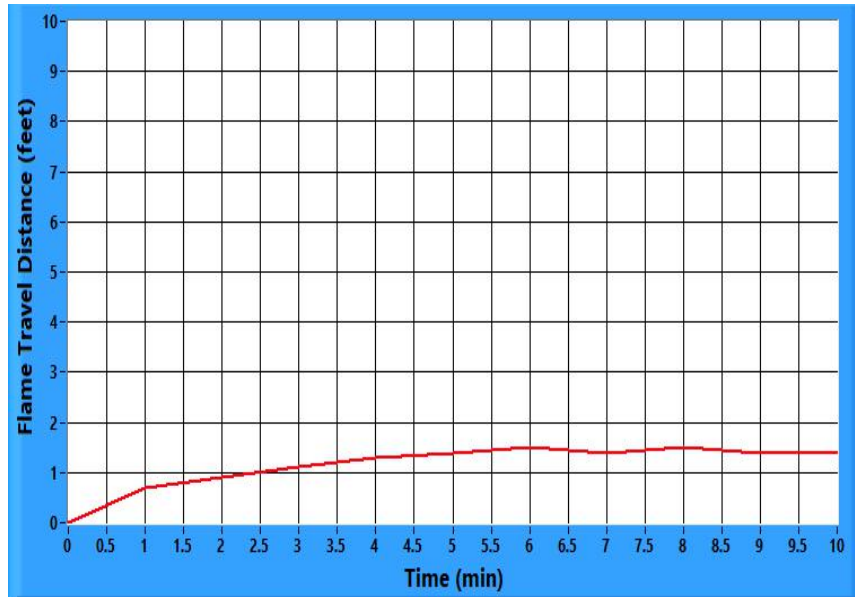


Authorised Signatory

# TEST REPORT

## Annexure B

### GRAPHS



*[Handwritten Signature]*  
Analyst Signature



Authorised Signatory



## Photographs



Before Test



After Test

-- End of Test Report --



Analyst Signature



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