

**BWP**  
HDF BOARD



**TESA** *action*®

**Boilo**®

**BOILING WATER PROOF HDF BOARD**

*Har Challenge Ke Liye Taiyar*

**FIRE RETARDANT**

TESTED AS PER STANDARD OF  
FIRE RETARDANT PLYWOOD (IS 5509 : 2000)

FLAME RETARDANT 3 TIMES MORE AGAINST PASSING  
PARAMETER OF IS 5509 : 2000 - FIRE RETARDANT PLYWOOD



TERMITE  
PROOF



BORER  
PROOF



FIRE  
RETARDANT



FUNGAL  
RESISTANCE



HIGHER  
DENSITY



TOUGHER  
THAN PLYWOOD



**ANTIVIRO**™

KILLS 99.99% VIRUS, BACTERIA & OTHER MICROBES

NOTE : ANTIVIRO BOARD, AVAILABLE IN  
PRELAMINATED BOILO BOARD

**BOILING WATER PROOF FR HDF BOARD**

# About Boilo

## BOILING WATER PROOF FR HDF BOARD

The wait is over, for the 1st Time in Panel Industry across the globe Action TESA has introduced a unique product BOILO- BWP HDF BOARD "BOILING WATER PROOF FR HDF BOARD". Due to inherent properties of BWP, HDF & Fire Retardant this product is highly suitable in interior applications having wet conditions, high load bearing surfaces, high traffic & high temperature areas.

**Available in - 8mm, 12mm, 16mm & 18mm (Plain & Prelam) Size: 8 x 4ft (8 x 6 ft available in 12mm only)**

**KEY APPLICATION AREA :**

- Restroom Toilet Cubicle
- Thermal Insulation
- Load Bearing Area – Decking / Warehouse Shelves/ Staircases
- Container Floor
- Truck Floor
- Bus Body Floor
- Bathroom Partition
- Fire Retardant Application
- Flooring
- Wall Paneling
- Furniture
- Fixtures
- Modular Kitchen
- Wardrobes
- Moist Area Furniture
- Stage Flooring

### RESTROOM TOILET CUBICLE

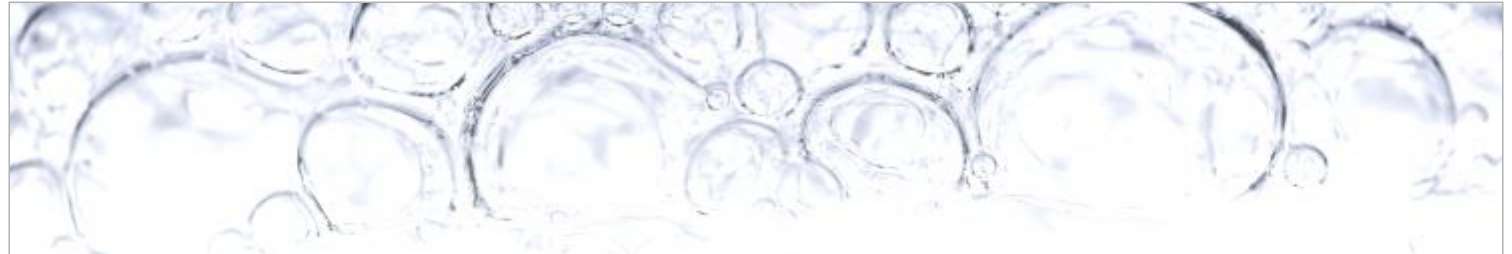
BOILO - Boiling water Proof FR HDF with High Density (compactness) and added advantage of Fire Retardant and High Dimensional Stability makes best replacement of compact cubicles.



### CONTAINER FLOOR

BOILO- Boiling water Proof FR HDF with built in High Load Bearing, High Impact Resistance & Toughened Surface is prime requisite for sturdy flooring.



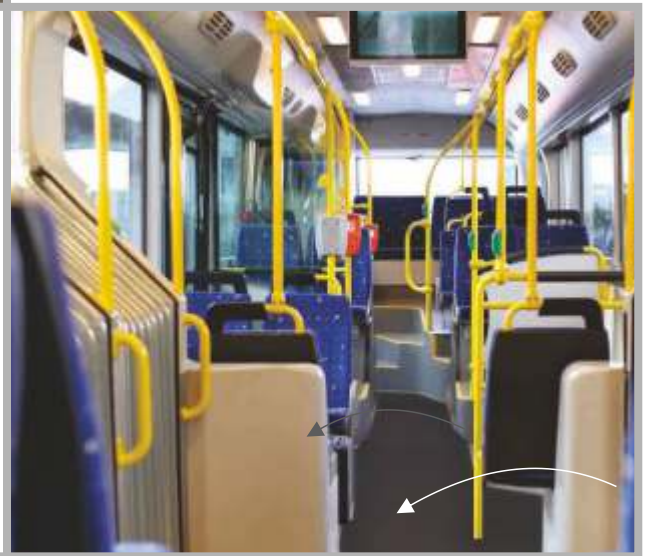


## **MOIST AREA FURNITURE**

BOILO- Boiling Water Proof FR HDF complimented with Fungus Resistant, Termite & Borer Proof property and High Dimensional Stability makes best suited in moist and hot area.

## **BUS BODY FLOOR**

BOILO- Boiling water Proof FR HDF having Fire Retardant High Load Bearing, High Impact Resistance & High Dimensional Stability besides giving sturdy floor add-ons to the safety aspect as well.



## **Load Bearing Area – Decking / Warehouse Shelves/Staircases**

BOILO- Boiling water Proof FR HDF having High Load Bearing & High Dimensional Stability can be used in shelves, lockers and trolley for stacking heavy equipment of objects.



# BOILO-BWP FR HDF (FEATURES AND BENEFITS)

Feature	Benefits
Very High Density	<ul style="list-style-type: none"> <li>High strength</li> <li>Multi Dimensional routing and carving possible</li> </ul>
Very Smooth Surface	<ul style="list-style-type: none"> <li>Best suited for Painting and polishing</li> </ul>
Very High surface density of 1180 kg/ m <sup>3</sup>	<ul style="list-style-type: none"> <li>High impact resistance</li> <li>High Resistance to Dents</li> <li>High paint coverage due to less surface absorption</li> <li>Lower glue consumption for Post-Lamination</li> <li>Low flammability – ( FR properties)</li> </ul>
Uniform Calibrated Thickness	Bubble free Pre-Lamination & Post-lamination
Homogenous structure- across the grain and along the grain similar properties	No core gaps or core overlaps
Good grey color	Can be polished- used as coloured HDF
Available in 8'X6' (12mm)	Reduction in cutting wastage
High rigidity (6 times higher than requirement of Structural plywood IS:10701)	Very High Load bearing strength
Fire retardant properties to confirm requirement of IS:5509	Enhance the safety of you & your surrounding
Very high bonding strength even after boiling water test	<ul style="list-style-type: none"> <li>Long Lasting product</li> <li>High Internal bonding and Excellent screw holding/ withdrawal strength even after boiling water proof test</li> </ul>
High Dimensional Stability	<ul style="list-style-type: none"> <li>Much Lower water absorption</li> <li>Lesser thickness swelling</li> <li>Much lower linear expansion</li> </ul>
Termite proof (1 Year testing Certificate from IPRITI)	<ul style="list-style-type: none"> <li>Long Lasting product</li> </ul>

## TECHNICAL SPECIFICATION - BOILO-BWP FR HDF BOARD

Sl. No.	Test Description	UOM	Test Standard	Marine Plywood requirement	BOILO -BWP HDF
	<b>Thickness</b>	mm		<b>19mm</b>	<b>18mm</b>
1.	Average Density*	Kg/m <sup>3</sup>	IS 2380 - Part 3	750	1020
2.	Density Range*	Kg/m <sup>3</sup>	IS 2380 - Part 3	650-775	1011-1056
3.	Surface density*	Kg/m <sup>3</sup>	IS 2380 - Part 3	750	1180
4.	Average I.B. (As Per IS-12406)*	N/mm <sup>2</sup>	IS 2380 - Part 5	0.57	2.91
5.	Minimum I.B*	N/mm <sup>2</sup>	IS 2380 - Part 5		1.95
6.	Screw Withdrawal Face*	N	IS 2380 - Part 14	2800-4250	5100
7.	Screw Withdrawal Edge*	N	IS 2380 - Part 14	2100-2900	2900
8.	Screw Withdrawal Edge (72 Hours Boiling)	N	IS 2380 - Part 14		1850
9.	Water Absorption 2 Hrs*	%	IS 2380 - Part 16	2.95	0.44
10.	Water Absorption 24 Hrs*	%	IS 2380 - Part 16	13	2.80
11.	Surface Swelling 2 Hrs*	%	IS 2380 - Part 17	0.36	0.35
12.	Thickness swelling 24 Hrs*	%	IS 2380 - Part 17	4 to 7	3.28
13.	Linear Expansion Length*	%	IS 2380 - Part 17	0.17 to 0.37	0.12
14.	Linear Expansion Width*	%	IS 2380 - Part 17	0.21 to 0.36	0.11
15.	Termite proof (1 year testing Certificate from IPRITI)		IS- 4833 (1993)	Not tested	Pass

## FIRE RETARDANT PROPERTIES BOILO-BWP FR HDF v/s FR PLYWOOD

Sl. No.	Test Description	UOM	Test Standard	Fire Retardant Plywood - IS-5509 Requirement	BOILO BWP HDF Results
	<b>Thickness</b>	mm		<b>19mm</b>	<b>18mm</b>
1.	Flammability	Minutes	IS 1734- Part 3	30	100
2.	Flame Penetration	Minutes	IS 1734- Part 3	45	51
3.	Rate Of Burning	Minutes	IS 1734- Part 3	20	39

### Test Report Boilo 12mm as per IS 15061:2002

Horizontal Burning	Specified Values $\leq$ 100	Actual Test Result - 0 not ignite <small>(very good result)</small>
Vertical Burning	Specified Values $\leq$ 100	Actual Test Result - 0 not ignite <small>(very good result)</small>
Melting Behavior	No Flaming or Melting	Remark - Confirm Passing

### Test Standards: ASTM E84-2020 (Tested Spectro Analytical Lab Ltd.)

Index	Class 1 or A Requirement	TESA Boilo Result
Flame Spread Index	0 - 25 (lower is better)	6.37
Smoke Development	450 Maximum (lower is better)	77.57
Remarks	Passing	Passing Class 1 or A



# ADVANTAGES OF BOILING WATER PROOF FR HDF BOARD

- ✓ BOILING WATER PROOF BOARD
- ✓ FIRE RETARDANT
- ✓ HIGH LOAD BEARING
- ✓ TOUGHENED SURFACE
- ✓ ENVIRONMENT FRIENDLY
- ✓ TERMITE & BORER PROOF
- ✓ HIGH IMPACT RESISTANCE
- ✓ HIGH DIMENSION STABILITY
- ✓ FUNGUS RESISTANCE
- ✓ HIGH DENSITY

## FOR PERFECT CUTTING & BETTER OUTPUT RECOMMENDED SAW BLADE FOR TESA BOILO BWP FR - HDF BOARD

The ideal cutting equipment shall be a Panel Saw with a primary Cutting blade & a secondary scoring blade or **Branded Hand-Held Circular Saw**, The Cutting motor shall drive between **5000 RPM – 7000 RPM**



TCT  
SAW BLADE



## Balaji Action Buildwell

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