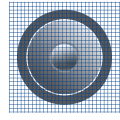




HILUX - The best-rated
boards and tiles for
Dry Walls and False Ceilings





Sound Insulation



Thermal Insulation



Water Resistance



Anti bacterial Growth



Borer resistance



Termite Resistance



Light Weight



Workability



Compatibility with other finishing material



Fungus resistance

A huge range of building materials is available today, it is becoming increasingly difficult to make an informed choice - with such a wide range of attributes, finishes and forms, Deciding which material to choose, is quite a challenge.

But there can be no debate that for critical applications as partitioning, panelling and false ceiling, hard core, functional product attributes should definitely take priority over aesthetics, workability and finish. That's why we have built in the best structural properties into Hilux Calcium Silicate Board.

It rates the highest on crucial parameters like fire, water and termite resistance, among others.

Quite simply, it is the best-rated board for dry walls and false ceilings.



RAMCO
HILUX
CALCIUM SILICATE BOARD

FIRE RESISTANCE

More than Plywood.
 Far better than Gypsum.



The only 4-hour fire-rated system in India !



Fire Rating (System)



Combustibility
 Non-combustible according to
 (BS 476:Part 4-1970)

Surface spread of flame
 Class - 1 as per
 (BS 476:Part 7-1997)

Fire Propagation
 Fire propagation index I = 1.2 as per
 (BS 476:Part 6-1989+A1:2009)

Ignitability
 Class 'P' not easily ignitable as per
 (BS 476:Part 5-1979)

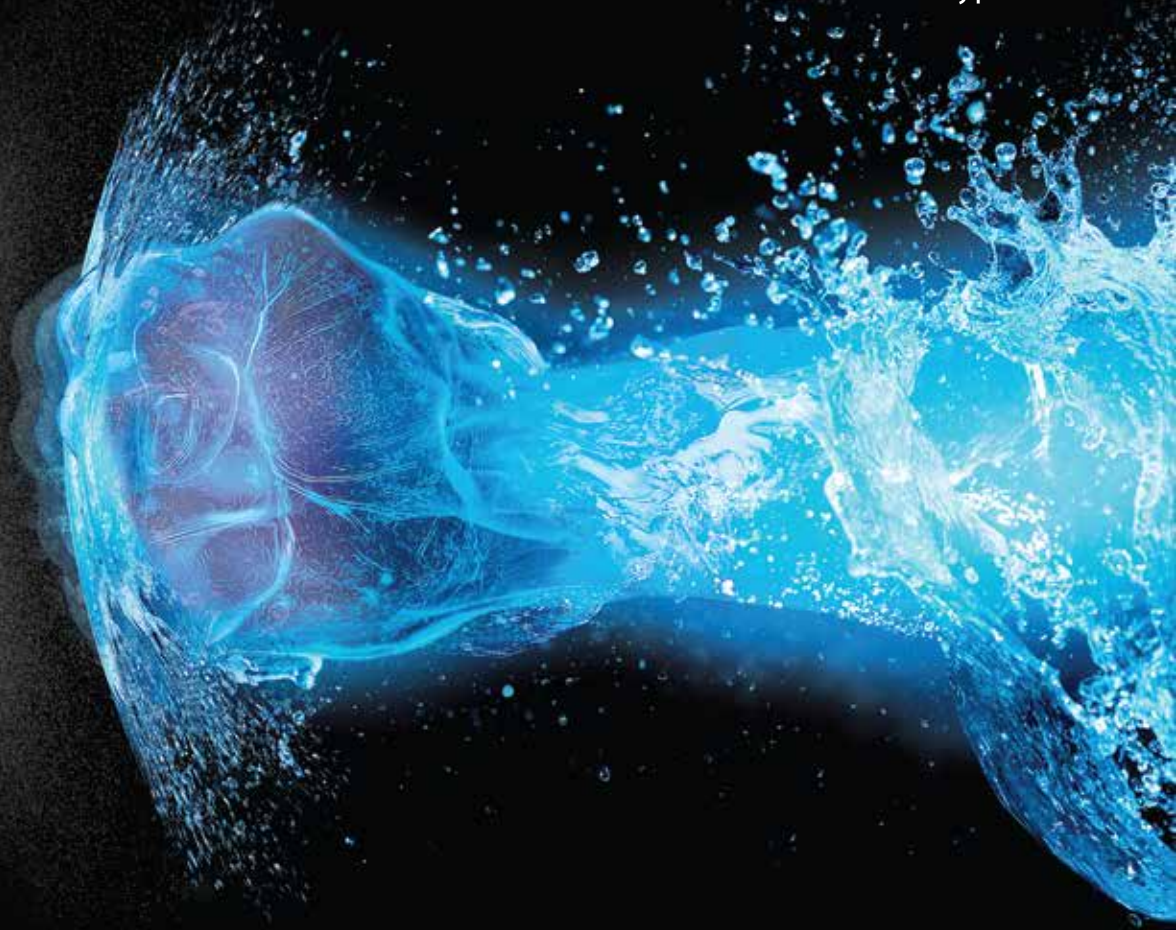
Classification
 of Reaction to Fire Performance
 EN 13501-1 = **Class -A1**

Flame Spread Index (FSI) = 0
Smoke Developed Index (SDI) =5
 ASTM -E 84

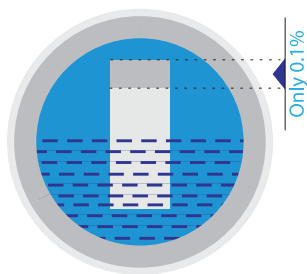
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WATER RESISTANCE

More than Plywood.
 Far better than Gypsum.



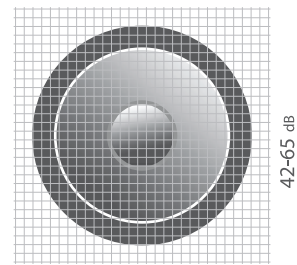
The only board dimensionally stable even when exposed to water !



Length Change in Water



No Fungus growth



Sound Insulation

Properties	Values
Thermal Conductivity-K	0.15 W/mK
Thermal Resistance-R	0.03/0.04/0.05/0.06 m ² K/W for 6 /8/10/12mm thick boards respectively
Moisture Content	Under 15%
Shrinkage Dimension (dry-saturated)	< 0.1%
Alkalinity	9-10 pH

Properties	Values
Density	900 Kg/m ³ (+/-50)
Flexural Strength (Dry)	10 N/mm ² (Longitudinal) 5.5 N/mm ² (Transverse)
Impact Strength	1900 J/m ²

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TERMITE RESISTANCE

More than Plywood.
Far better than Gypsum.

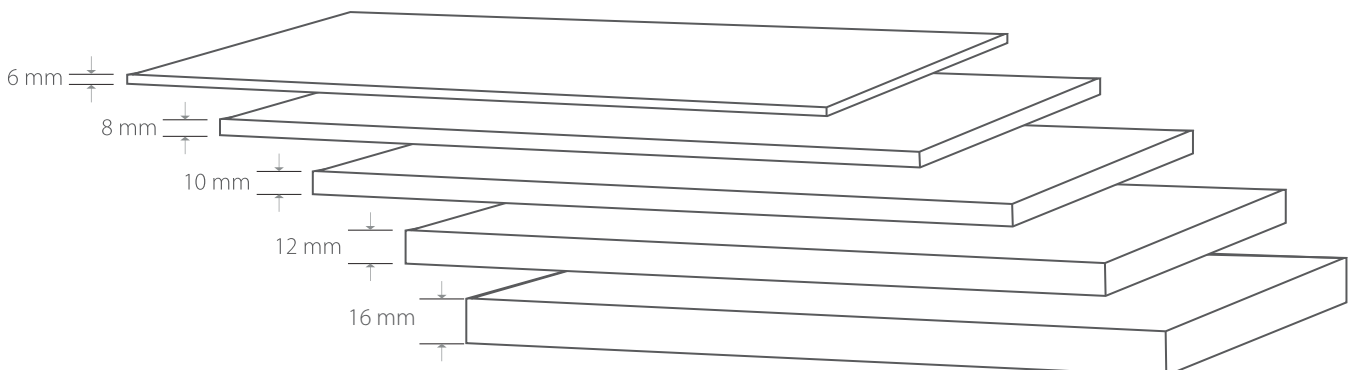


The only board completely unaffected by termites

Available Sizes :

2440 x 1220 mm	1830 x 1220 mm	1220 x 1220 mm	
1220 x 610 mm	1195 x 595 mm	610 x 610 mm	595 x 595 mm

Available Thickness



FUNGUS RESISTANCE

More than Plywood.
Far better than Gypsum.



The only board with zero fungus growth ensuring clean and healthy environment

Dimensional Stability

The boards are auto-claved (high pressure steam curing) which results in an irreversible chemical change, thus providing high dimensional and chemical stability.

Decoration

The boards can be decorated with any type of paint, wall paper, wood veneer or hard laminate of 1 mm thickness. Ceramic tiles can also be pasted to Hilux boards, using suitable adhesive. Interior designers and architects can give free reign to their imagination when working with Hilux!

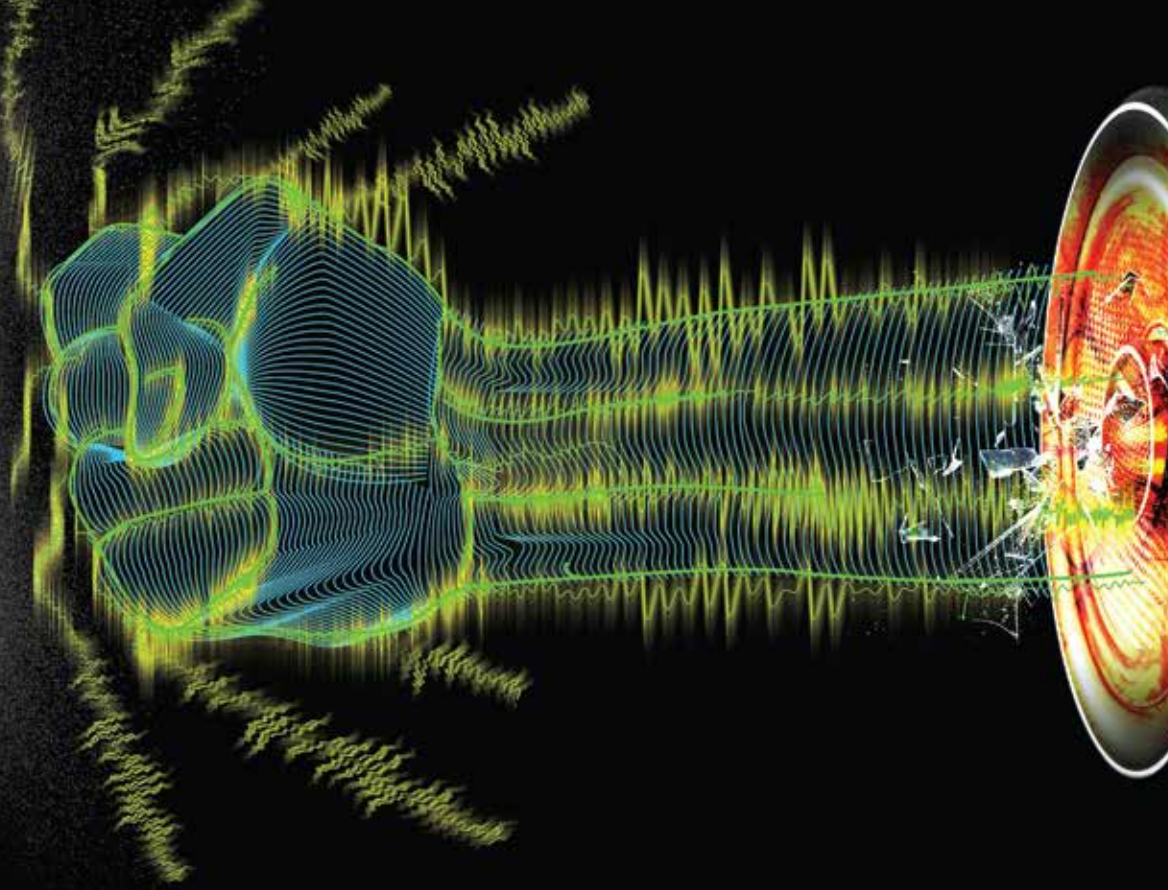
Flexibility

Hilux boards are also very flexible to design. 6mm thick Hilux boards can be bent (minimum radius-600mm) to provide curved surfaces. Boards will bend more easily, if bent across their long axes when they are wet or saturated.

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CALCIUM SILICATE BOARD

SOUND INSULATION

More than Plywood.
Far better than Gypsum.



Excellent acoustics with transmission class between 42 - 65 dB

Compatibility

The boards do not aid corrosion, saponification of paints or affect bituminous compounds. Hilux boards are compatible with most common building materials.

Screw / Holding

Hilux boards have the capacity to hold nails and screws and do not require any backing frame to hang light-weight objects like picture frames.

Seamless Finish

Hilux boards can provide seamless finish decorated with most forms of paints and wall papers.

IMPACT RESISTANCE

More than Gypsum.
 As good as Plywood*



* in the respective density range

Strong board at low density with high impact strength of 1900 J/m² @ 900 Kg/m³

Applications

Verticals	Features
Commercial Complexes (Shopping Malls, Theatres, Community Centres and Auditoriums)	Fire Resistance, Acoustic & Light Reflection, Energy Saving, Moisture Absorption, Heat Insulation, Impact Resistance
Individual Home , villas , apartments and Dwelling units	Fire Resistance, Acoustic & Light Reflection, Energy Saving, Moisture Absorption, Heat Insulation, Impact Resistance
Textiles , Automobile, Poultry,refineries, etc.	Energy Saving, Workability, Heat Insulation, Sound Insulation
Metro Stations, railways, CPWD and MES, etc.	Sound Insulation, Fire Resistance, Impact Resistance, Water Absorption
Hospitals, pharma and Laboratories	Sound Insulation, Fire Resistance, Impact Resistance, Water Absorption, Moisture Absorption, Heat Insulation
Hotels, Resorts, Restaurants, tourism and cottage	Workability, Fire Resistance, Sound Insulation, Water Absorption, Moisture Absorption, Impact Resistance, Heat Insulation, Energy Saving
Educational Institutions, School, college and auditoriums	Fire Resistance, Sound Absorption, Water Absorption, Moisture Absorption, Heat Insulation



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WORKABILITY Far better than Fibre Cement Boards



Easy to cut. Easy to mount. Easy to install



Applications	Recommended Areas
Ceilings, Partitions, Wall Panellings, Columns, Duct Encasements and Fire Doors	Halls, Bathrooms and Toilets, Canteens, Convention Centers, A/C Ducts, Rooms, Conference Halls
Ceilings, Partitions	Semi-exposed Areas, Bathrooms and Toilets, Corridors
Ceilings, Partitions, Wall Panellings	Processing Units
Grid Ceilings	Processing Units
Ceilings, Partitions, Fire Doors, Duct Encasement	Operation Theatres, ICUs, Reception & Halls, Semi Exposed Areas, A/C Ducts, Rooms
Decorative Ceilings, Partitions, Fire Doors, Duct and Column Encasements, Wall Linings	Corridors, Receptions, Toilet Areas, Semi-Exposed Areas, Fire Exit Staircases, A/C Ducts, Rooms, Conference and Banquet Halls
Ceilings, Partitions, Duct and Column Encasement, Wall Paneling, Soffit Lining	Receptions, Meeting Rooms, Class Rooms, Semi Exposed Areas, Exteriors, Canteens & Open Auditoriums, Toilet Areas, Gymnasiums

Applications

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RAPID CONSTRUCTION

Faster than
Fibre Cement Board



Tremendous time saving. No painful waiting periods

Fire Resistance and Characteristics

Description	Result	Standard
Fire resistance Partition - Hilux 2 layers+ 50mm GI channel (50mm Rockwool - 64kg/m ³)+ Hilux 2 layers	Can withstand fire up to 120 minute	BS - 476-Part - 20/22, IS:3614-Part 2-1992 & IS :3809-1979
Fire resistance Partition - Hilux 3 layers+ 94mmGI channel (100mm Rockwool - 64kg/m ³)+ Hilux 3 layers	Can withstand fire up to 250 minute	IS : 3809-1979,BS:476 (part 20&22)0-1987 and IS :3614 (part 2)- 1992
Fire resistance Partition - Hilux 2 layers+ 50mm GI channel (50mm Rockwool - 64kg/m ³)+ Hilux 2 layers	Can withstand fire up to 135 minute	BS:476 (part 20&22)0-1987 and S:3614 (part 2)- 1992
Fire resistance Partition - Hilux 2 layers+ 50mm GI channel (50mm Rockwool - 64kg/m ³)+ Hilux 2 layers	Can withstand fire up to 120 minute	BS - 476-Part - 20/22, IS:3614-Part 2-1992 & IS :3809-1979

Certifications

LIGHTWEIGHT As good as Wood.
Much more lighter than brick and mortar.

Light in weight with superior properties

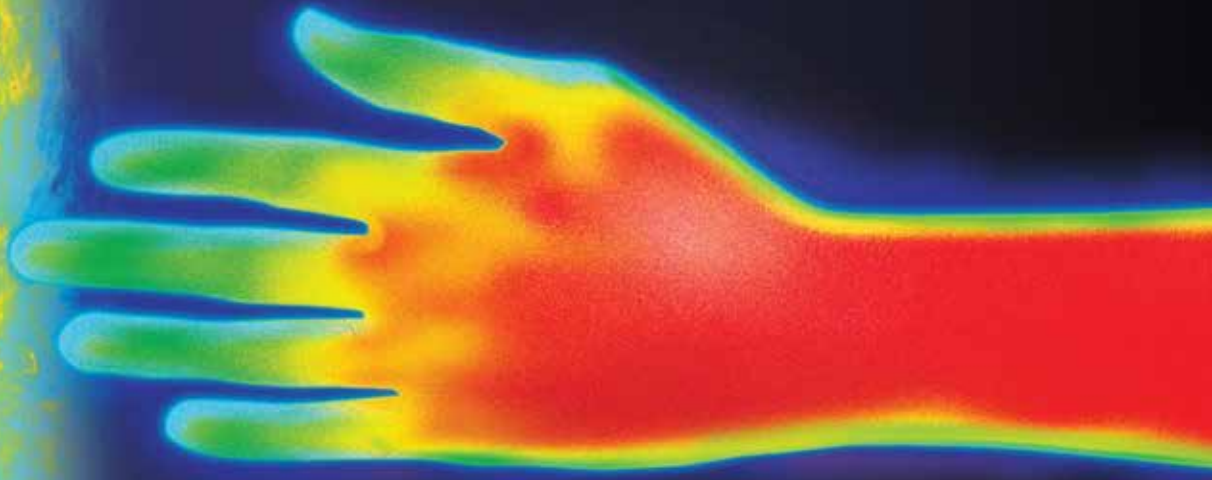
Sound Transmission Loss and Sound Transmission Class

Description	Result	Standard
98 mm -2 x 12 mm Hilux board + 50 mm channel filled with 50 mm Rockwool 48kg/m ³ + 2 x 12 mm Hilux board	STC 54	ASTM E 90/ISO :140-3 ,IS :9901 (part III)-1981,DIN 52210 part IV-1984, ASTM E 413. ISO :140 (part III) -1995
223mm of 2 x 12 mm Hilux board + 50 mm channel filled with 50mm glasswool 32Kg/m ³ + 75 mm air gap + 50 mm channel filled with 50mm glasswool 32Kg/m ³ + 2 x 12 mm Hilux board	STC 65	
70 mm -10 mm Hilux board + 50 mm channel filled with Air Gap + 10 mm Hilux board	STC 42	
6 mm HILUX single board Acoustic partition with 50 mm channel	STC 30	
Sound Absorption and Noise reduction coefficient		
8mm Hilux round hole perforated tile & 15% open area + 50 mm Rockwool + Nonwoven in 500 mm air gap	0.75	IS :8225-1987, ISO :354-1985, ASTM 423-90 a
8 mm thick Hilux calcium silicate perforated tile size 595 mm x 595 mm , mounted on 50 mm mineral rock wool of 48 kg density .	0.85	IS :8225-1987, ISO :354-1985, ASTM 423-90 a

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CALCIUM SILICATE BOARD

THERMAL INSULATION

More than Wood.
 Much more than plastic,
 rubber and glass.

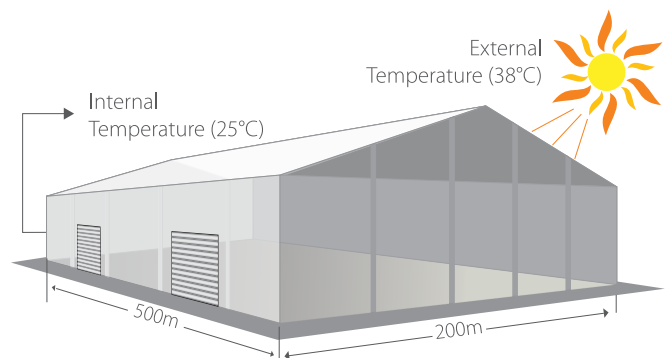


Minimises heat transfer in buildings, up to 40% energy and cost savings

Use Hilux.
 Save lakhs in energy costs.

Temp Difference

External Temperature (°C) - Internal Temperature (°C)	
38°C - 25°C = 13°C	Area = 200 m x 500 m = 1,00,000 sq.m



Description	Fibre Cement Board	Hilux Board
U Value	4.38 W/m ² K	4.17 W/m ² K <small>Lower the U Value, better the heat Insulation</small>
Heat Loss - KWh (U value x area x temp. Difference / 1000)	4.38 x 1,00,000 x 13 / 1000 = 5694 KWh	4.17 x 1,00,000 x 13 / 1000 = 5421 KWh
Heat Loss in a year (kWh x 300 days x 24 hours)	4,09,96,800 KWh	3,90,31,200 KWh
Overall loss caused by heat loss @ Rs. 9 per unit	4,09,96,800 x Rs. 9 = Rs. 36,89,71,200	3,90,31,200 x Rs. 9 = Rs. 35,12,80,800

Recurring Savings per year on usage of Hilux Board for a 1,00,000 sq. m. area (Rs. 36,89,71,200 - Rs. 35,12,80,800)

Rs. 1,76,90,400

DESIGNER FINISH

Not possible with Gypsum
Only possible with Hilux

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CALCIUM SILICATE BOARD



The Boards can be Digitally Printed



* Conditions apply

Unique Warranty

Such is the confidence we have in the performance of our products that we are offering a 10-year Warranty on our Boards and a 15-year Warranty on our Tiles, covering free replacement of the Boards or Tiles if they deteriorate owing to a manufacturing defect.

Terms & Conditions of Warranty:

The Warranty is not valid in case of

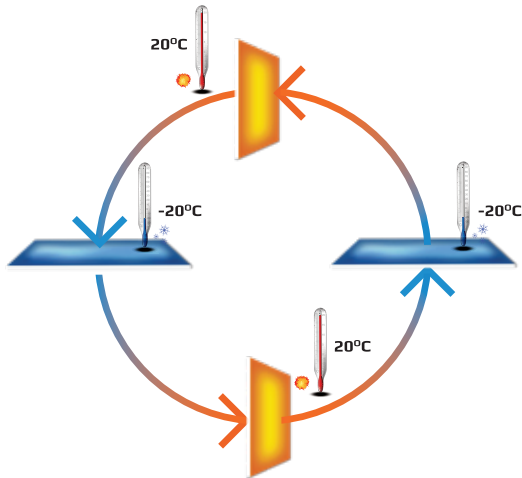
1. Boards/Tiles purchased from a dealer/retailer/seller other than those authorized by Ramco Industries Limited.
2. Installation, storage and maintenance procedures followed are found to be in contravention to those outlined on our website www.ramcohilux.com.
3. Only on usage of Hilux accessories in your installations.
4. Wilful negligence by user personnel. 5. Force Majeure.

DURABILITY

Freeze / Thaw Tests

Ascertains the use of the material in hot and cold environment

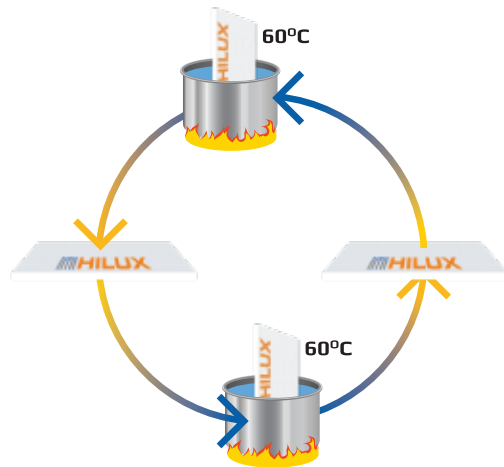
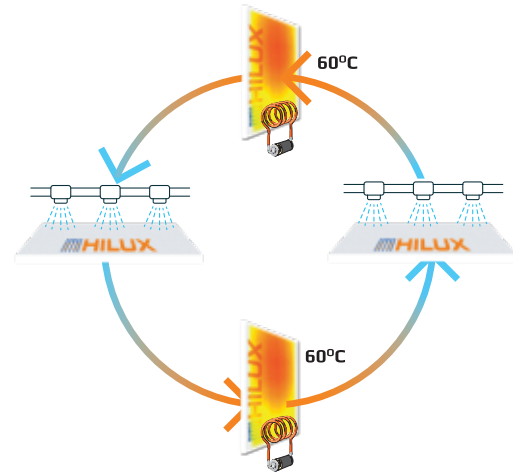
Passes 100 cycles



Heat Rain Test

Indicates the capacity to the material to withstand extreme weather conditions.

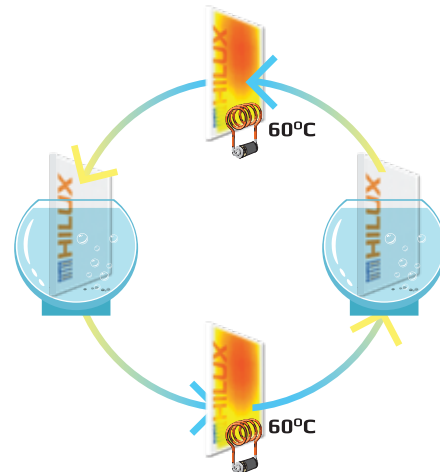
Passes 50 cycles



Warm Water Test

Property of material to resist degradation when immersed in hot water

Passes 56 days



Soak Dry Test

Property of material to resist cyclic degradation of drying and wetting

Passes 50 cycles

Ramco Hilux is extremely durable when compared to all other types of boards. It can withstand all weather conditions and is highly suitable for use in places where the climate is extreme.

Description	Code	Result
Freeze Thaw	BS EN 12467	Passes 100 cycles
Heat Rain	BS EN 12467	Passes 50 cycles
Warm Water	BS EN 12467	Passes 56 days
Soak Dry	BS EN 12467	Passes 50 cycles



ENGINEERING



IT SECTOR



PHARMA / HOSPITALS



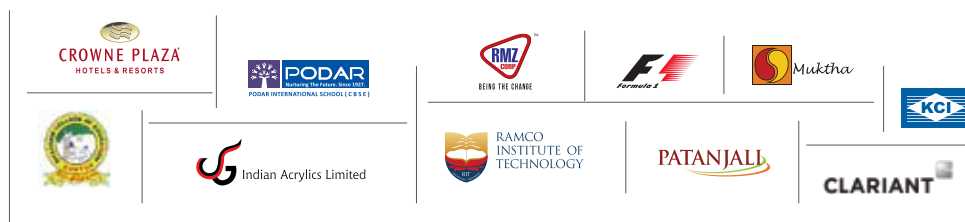
GOVT. SECTORS



TEXTILES



INFRASTRUCTURE / BUILDERS



OTHERS

RAMCO SmartBuild

T e c h S e r v i c e s

Ramco SmartBuild is an end-to-end Service and Solutions initiative for Dry Construction



Design & Material Consultancy



Project Execution



Site Quality Assurance



Training in Dry Construction methods

Designer Tiles	Perforated Tiles	Accessories
Textured pin Hole	Tiny Hole perforated	Self tapping and drilling screw
Tiny Star	Round hole perforated	Floor/Ceiling Channel
Semi Pin hole	Round hole	Stud
Semi pin hole-Full design	Square hole Perforated	Ceiling section
9 Square	Random Slit perforated	Perimeter channel
Densified Tile	Straight Slit Perforated	Intermediate channel
Plain Tile	Tiny Slit Perforated	Ceiling angle



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