



HILUX - The best-rated boards for dry walls

**RAMCO**  
  
**HILUX** 85  
Calcium Silicate Board





## Introduction

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 precedence over aesthetics, workability and finish. That's why we have built in the best structural properties into Hilux Calcium Silicate Board.

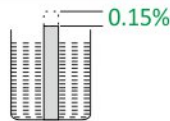
It rates the highest on crucial parameters like fire, water and termite resistance, among others. Quite simply, it is the best-rated board for dry walls and ceilings. Read on to discover just how.

# Physical Properties

Fire Rating (system)



Length Change in water



Sound Insulation



Biological



Properties	UNIT	VALUES
Thermal Conductivity-K	W/mK	0.18
Thermal Resistance-R	m <sup>2</sup> K / W	0.04/0.05/0.06/0.08 for 6 /8/10/12mm thick boards respectively
Moisture Content	%	Under 15
Shrinkage Dimension (dry-saturated)	%	0.10
Alkalinity	pH	10

### Non-combustibility

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

### Surface spread of flame

Class - 1 as per (BS 476:Part 7-1971)



Fire Protection

### Fire Propagation

Fire propagation index I = 3.79 as per (BS 476:Part 6-1981)

### Ignitability

'P' not easily ignitable as per (BS 476:Part 5-1968)

# FIRE RESISTANT

More than Plywood.  
Far better than Gypsum.

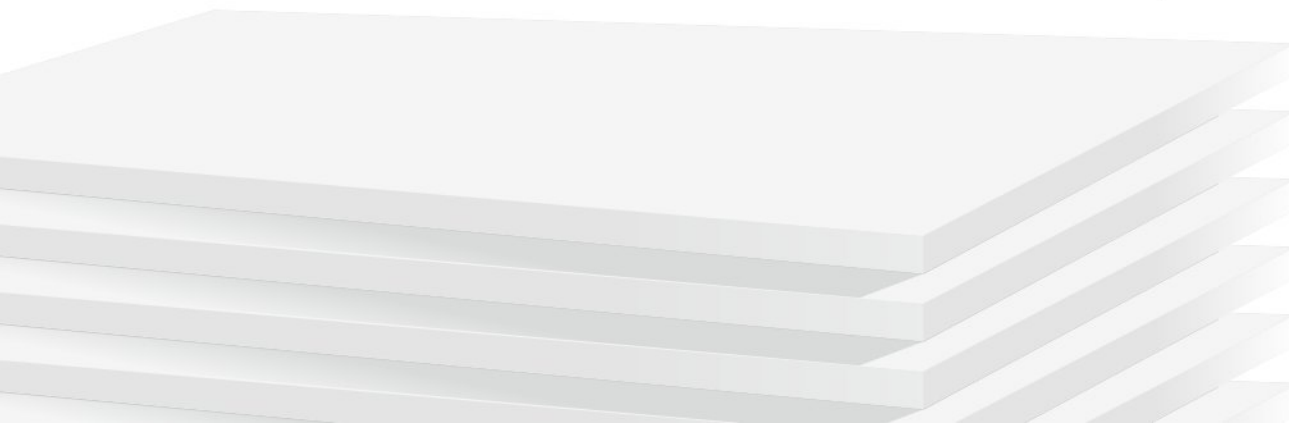
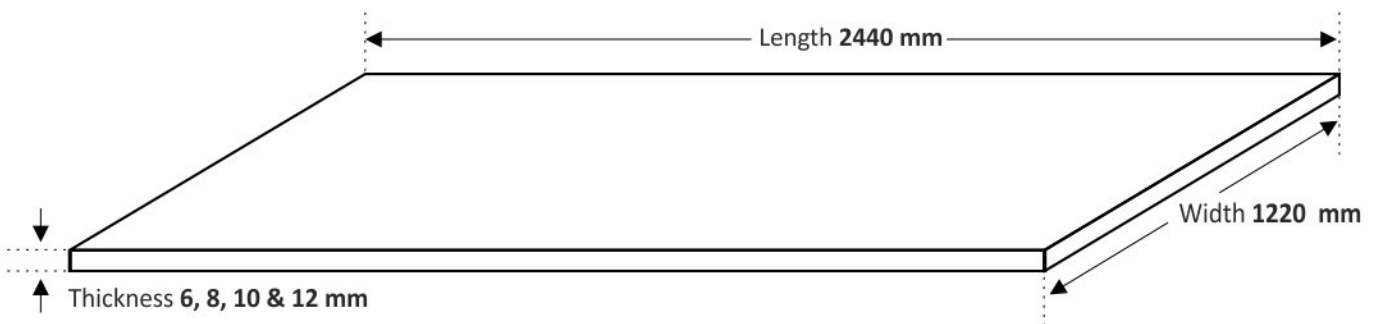
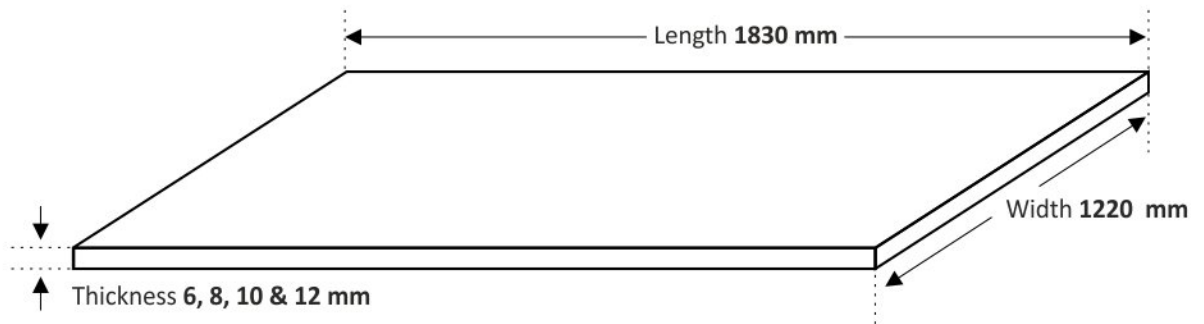
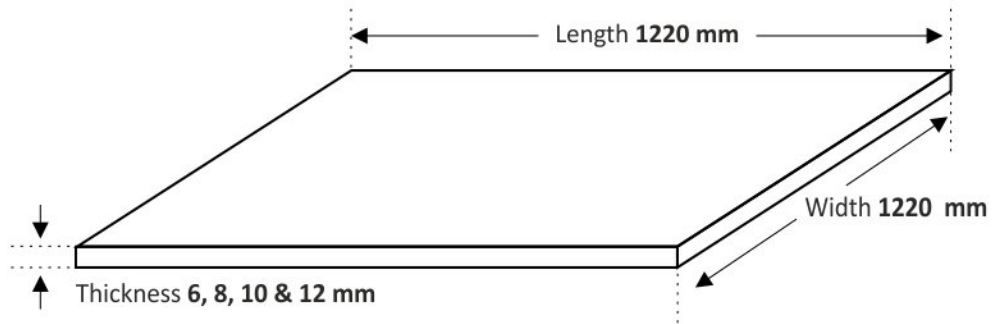


# HILLUX

WALL, CEILING, PANEL SYSTEMS

**The only 4-hour fire-rated board in India!**

# Physical Properties



# WATER RESISTANT

More than Plywood.  
Far better than Gypsum.



# HILUX

WALL, CEILING, PANEL SYSTEMS

**The only board dimensionally stable after  
2-hour soaking in water !**

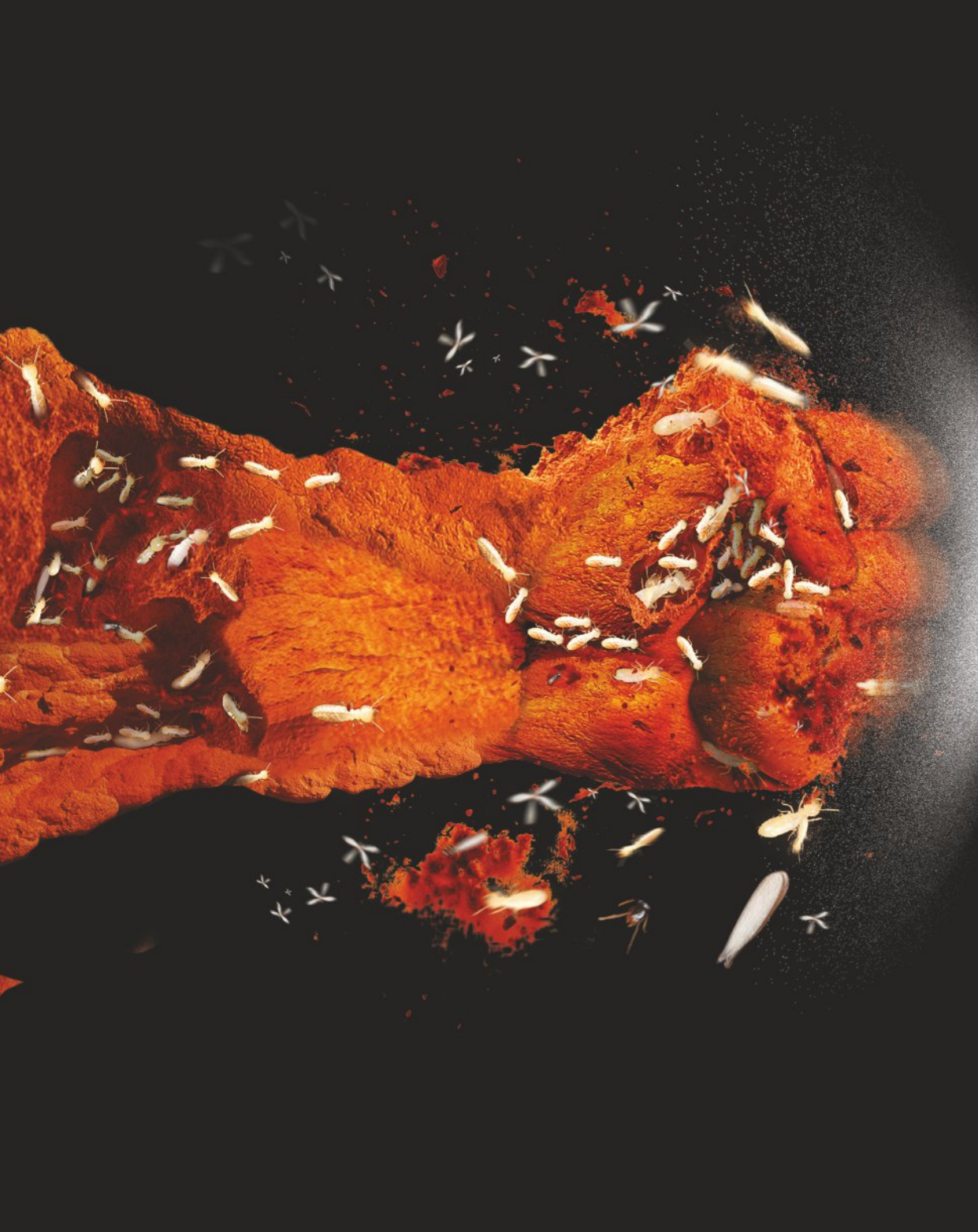
# Physical Properties

		Compressive strength 225 Kg/cm <sup>2</sup>		
	Density 850 Kg/m <sup>3</sup>		Tensile strength 60 Kg/cm <sup>2</sup>	
		Impact strength 1700 J/m <sup>2</sup>		
	Bending strength 100 Kg/cm <sup>2</sup>		Young's modulus 265 Kg/cm <sup>2</sup>	
		Flexural strength (N/mm <sup>2</sup> ) Longitudinal-10 Transverse-5.5		



# TERMITE RESISTANT

More than Plywood.  
Far better than Gypsum.

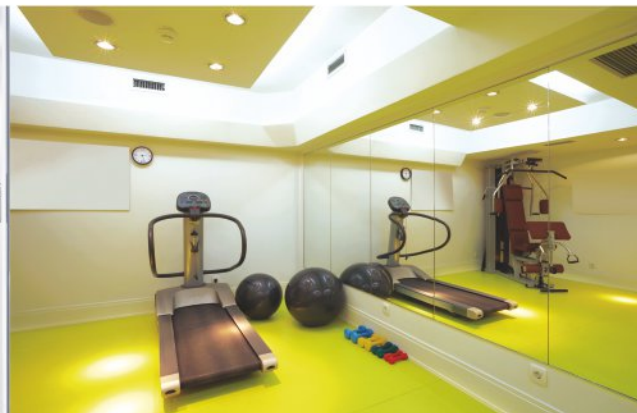


**RAMCO**  
**HILUX**  
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**The only board completely unaffected by termites**

# Applications

Verticals	Features
<p><b>Commercial Complexes</b> (Shopping Malls, Theatres, Community Centres and Auditoriums)</p>	<p>Fire Resistance, Acoustic &amp; Light Reflection, Energy Saving, Moisture Absorption, Heat Insulation, Impact Resistance</p>
<p><b>Airports and Metro Rail</b></p>	<p>Light Reflection, Sound Insulation, Moisture Absorption</p>
<p><b>Food and Pharma Industries</b></p>	<p>Light Reflection, Sound Insulation, Moisture Absorption No fungal/bacterial growth</p>
<p><b>Textiles</b></p>	<p>Energy Saving, Workability, Heat Insulation, Sound Insulation</p>
<p><b>Hospitals and Laboratories</b></p>	<p>Sound Insulation, Fire Resistance, Impact Resistance, Water Absorption, Moisture Absorption, Heat Insulation</p>
<p><b>Hotels, Resorts and Restaurants</b></p>	<p>Workability, Fire Resistance, Sound Insulation, Water Absorption, Moisture Absorption, Impact Resistance, Heat Insulation, Energy Saving</p>
<p><b>Offices, IT Parks &amp; Educational Institutions</b></p>	<p>Fire Resistance, Sound Absorption, Water Absorption, Moisture Absorption, Heat Insulation</p>



## Applications

**Ceilings, Partitions, Wall Panellings,  
Columns, Duct Encasements and Fire Doors**

**Ceilings, Partitions**

**Ceilings, Partitions, Wall Panellings**

**Grid Ceilings**

**Ceilings, Partitions, Fire Doors, Duct Encasement**

**Decorative Ceilings, Partitions, Fire Doors, Duct and  
Column Encasements, Wall Linings**

**Ceilings, Partitions, Duct and Column Encasement,  
Wall Paneling, Soffit Lining**

## Recommended Areas

Halls, Bathrooms and Toilets,  
Canteens, Convention Centers, A/C Ducts,  
Rooms, Conference Halls

Semi-exposed Areas, Bathrooms  
and Toilets, Corridors

Processing Units

Processing Units

Operation Theatres, ICUs, Reception & Halls,  
Semi Exposed Areas, A/C Ducts, Rooms

Corridors, Receptions, Toilet Areas,  
Semi-Exposed Areas, Fire Exit Staircases,  
A/C Ducts, Rooms, Conference and Banquet Halls

Receptions, Meeting Rooms,  
Class Rooms, Semi Exposed Areas, Exteriors,  
Canteens & Open Auditoriums, Toilet Areas, Gymnasiums



### Terms & Conditions of Guarantee

The Guarantee is not valid in case of: (1) Boards/Tiles purchased from a dealer/retailer/seller other than those authorised by Ramco Industries Limited (2) Installation, storage and maintenance procedures followed are found to be in contravention to those elucidated on our website [www.ramcohilux.com](http://www.ramcohilux.com) (3) Wilful negligence of user personnel (4) Force Majeure

# Certifications

Description	Testing Centre	Code	Result
Non- Combustibility	PSB Corporation, Singapore	BS-476-Part-4-1970	<b>Non-Combustible</b>
Fire propagation Index	CBRI, Roorkee	BS-476-Part-6-1981	<b>I = 3.79</b>
Surface Spread of Flame	CBRI, Roorkee	BS-476-Part-7-1971	<b>Class-1</b>
Ignitability test	CBRI, Roorkee	BS-476-Part-5-1968	<b>"p" Not easily ignitable</b>
Bending strength	Anna University, Chennai	Across the fibre Along the fibre	<b>129 Kg/cm<sup>2</sup> 84 Kg/cm<sup>2</sup></b>
Young's modulus	Anna University, Chennai		<b>265 Kg/cm<sup>2</sup></b>
Thermal Conductivity	Nirma University, Ahmedabad	ASTM C1774 ISO 8302	<b>0.18 W/mK</b>
2x10mm Hilux boards on each side of 48mm stud+ 50x48 Kg/m <sup>3</sup> . Mineral wool in the cavity.	CBRI, Roorkee	BS- 476-Part-20/22	<b>One &amp; Half Hour</b>
2x12mm Hilux board on each side of 48mm stud +50 x 64 Kg/m <sup>3</sup> . Ceramic wool in the cavity.	CBRI, Roorkee	BS- 476-Part-20/22	<b>Two Hours</b>
1x12mm Hilux board on each side of 48mm stud +50 x 64 Kg/m <sup>3</sup> . Ceramic wool in the cavity.	CBRI, Roorkee	BS- 476-Part-20/22	<b>Two Hours</b>
3 x 12 mm Hilux Boards on each side 98 mm stud+100 x 64 Kg/m <sup>3</sup> . Ceramic wool in the cavity	CBRI, Roorkee	BS- 476-Part-20/22	<b>Four Hours</b>
200mm thick partition consisting of 12mm Hilux Calcium Silicate Board + 10mm Hicem Board on either side of a Twin 48mm stud holding 50mm glass wool (48kg/m <sup>3</sup> ) and at centre being 56mm air gap	NPL, New Delhi	IS-9901-Pt.-III-1981	<b>56 dB</b>
Sound Absorption: NRC 8mm thick Hilux Perforated tile (595x595) mounted on 50mm x 48 Kg/m <sup>3</sup> Mineral wool	NPL, New Delhi	As per IS:8225-1987	<b>0.85</b>

# IMPACT RESISTANT

More than Plywood.  
Far better than Gypsum.



# HILLUX

WALL, CEILING, PANEL SYSTEMS

Robust impact strength of **1700 J/m<sup>2</sup>**.

## Unique Features/Properties



### **Fire Resistant**

Hilux Calcium Silicate Boards have Class-1 surface spread of flame with ignitability as "P" not easily ignitable, hence can provide good fire resistance in the range of 30 minutes to 240 minutes, depending on the construction design.



### **Water Resistant**

Hilux Calcium Silicate Boards, when immersed in water for 24 hours, will lose its strength marginally but regains its full strength as soon as it is dry. Hence it is a water resistant board and can be used in high humidity areas or where there is a risk of water coming in contact with the board.



### **Termite Resistant**

Hilux Calcium Silicate Boards are made of inorganic minerals and have stable crystalline structure. This makes the boards termite resistant, and the material does not aid in fungus growth.



### **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 accompanied by low alkalinity.



### **Strong & Durable**

The stable crystalline structure makes the boards strong and durable. The boards are strong enough to take normal impacts. They do not degrade or deteriorate physically.

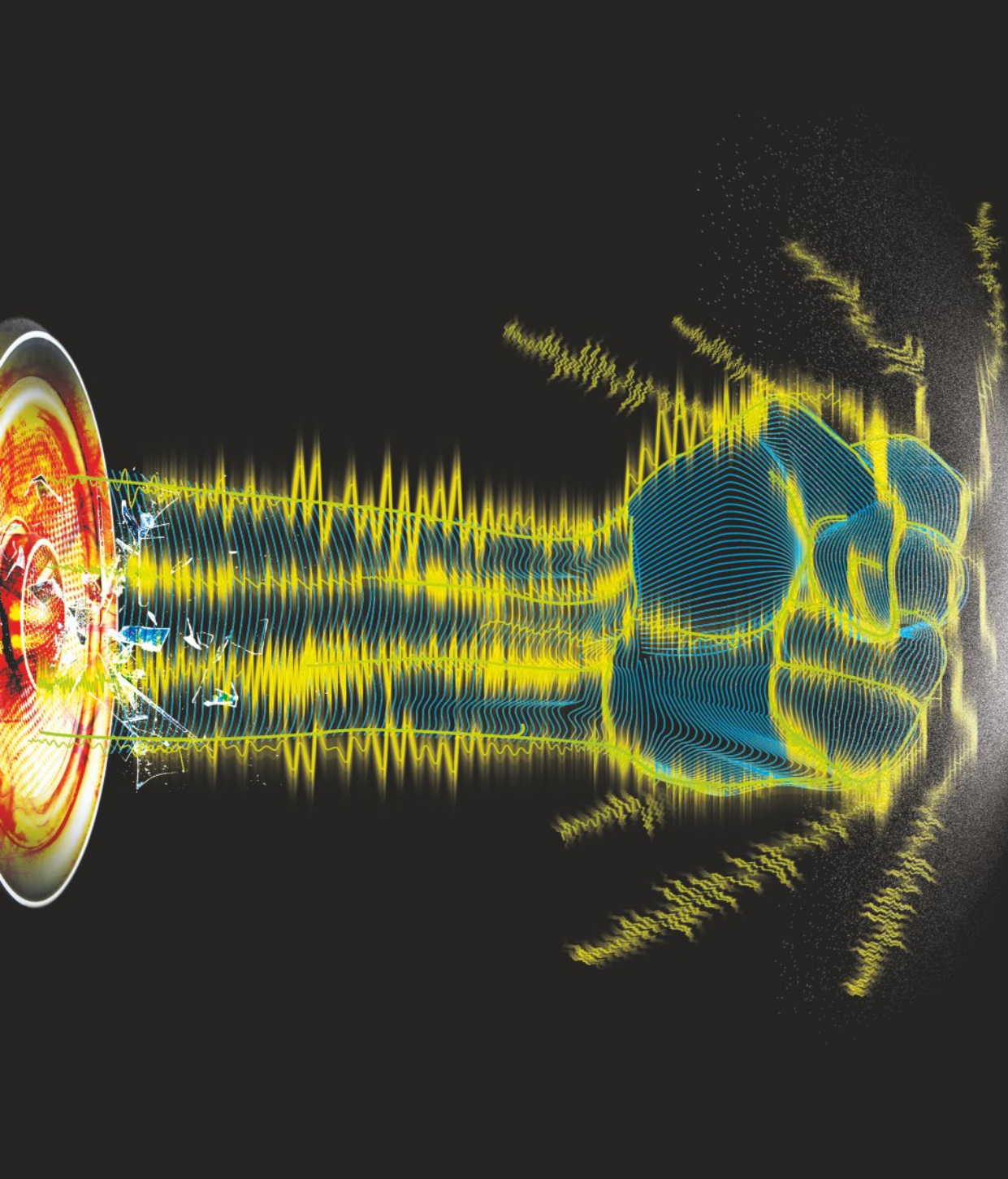


### **Light Weight**

Hilux boards are light in weight therefore can be handled easily. Its dry density is 850 Kg/m<sup>3</sup>.

# SOUND RESISTANT

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Far better than Gypsum.



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WALL, CEILING, PANEL SYSTEMS

Sound insulation between **39-56 dB**

## Unique Features/Properties



### Easy Workability

Calcium Silicate Boards are very easy to work with as they can be cut and drilled with ordinary carpenter's tools and can also be sanded with conventional emery sheets.



### 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 axis when they are wet or saturated.



### Light Reflection

Undecorated boards provides 75% light reflectance.



### Compatibility

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



### Screw / Nail 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, wall papers and laminates.



# FUNGUS RESISTANT

More than Plywood.  
Far better than Gypsum.



# HILLUX

WALL, CEILING, PANEL SYSTEMS

**The only board with zero fungus growth**

For almost 50 years, Ramco Industries Limited, a part of the USD 1 billion Ramco Group, has been in the forefront of innovation, answering perplexing challenges with definitive solutions.

Located at Keshwana in the state of Rajasthan and Arakkonam in the state of Tamil Nadu, Ramco Industries' two world-class manufacturing plants have a combined capacity of approx. 75,000 metric tonnes per annum. Hilux boards are composed of a composite matrix of portland cement and mineral additives reinforced with special grade cellulose fibres.

These fully automated and computerized plants, manned by highly technical staff, use only the best of materials to consistently produce world class products. These wonder boards are manufactured using the advanced Hatschek process.

The boards are cured employing the world-renowned HPSC technology that uses high pressure steam to ensure superior strength and stability of the end-product.

Our highly skilled workforce with stringent quality norms entwined in their DNA ensures that only approved products reach end users through our widespread distribution network.

A dedicated research and development team constantly strives to re-engineer and add further value to our products.

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BROOKEFIELDS



Danke's



ALSTOM

TATA  
TATA CONSULTANCY SERVICES



## TILES

### Acoustic Tiles

- Tiny Hole perforated
- Random Slit perforated
- Round Hole perforated
- Square Hole perforated
- Tiny Slit perforated
- Round Hole
- Straight Slit perforated

### Ceiling Tiles

- Semi Pin Hole
- Semi Pin Hole square
- Tiny Stars
- 9 Squares

## ACCESSORIES

### Finishing

Jointing compound, Jointing tape

### Frame work accessories

Channels, Jointing clips

### Minor accessories

Screws

*Corporate Office:*

### **Ramco Industries Limited**

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