



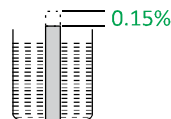
HILUX - The best-rated boards for dry walls

# Physical Properties

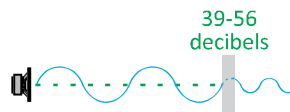
Fire Rating (system)



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)



Fire Protection

## Surface spread of flame

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

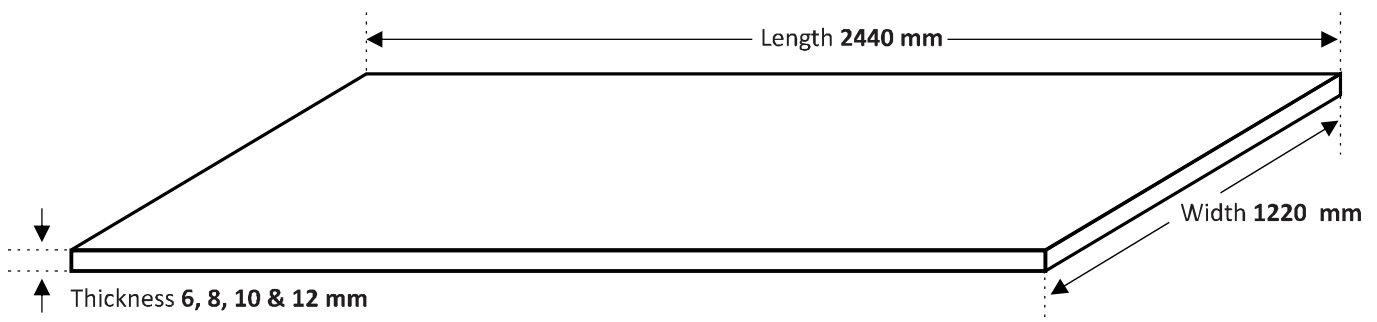
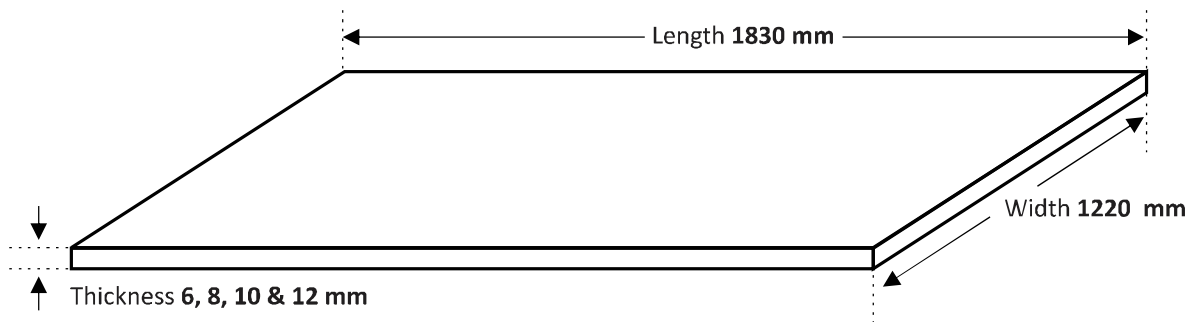
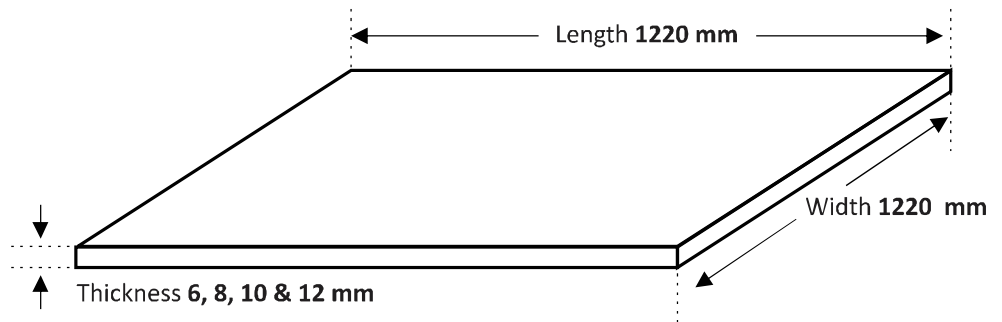
## Fire Propagation

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)

## Physical Properties

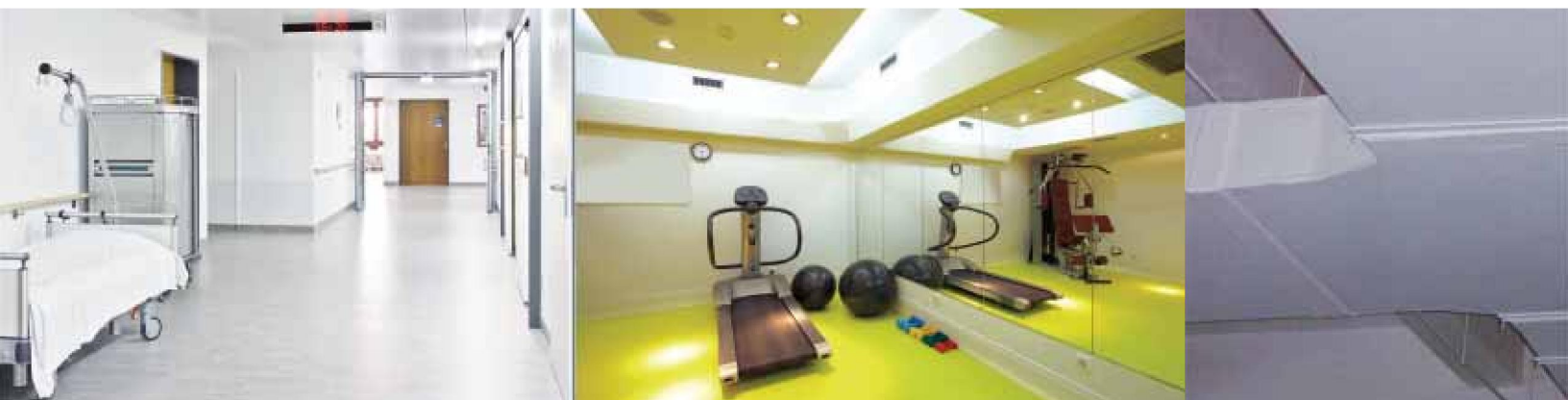


## Physical Properties

		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		

# Applications

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



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



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

## 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>.