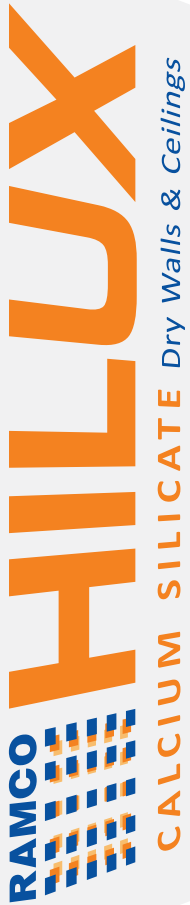




HILUX - The best-rated boards for Dry Walls and Ceilings



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.

FIRE RESISTANCE

More than Plywood.
Far better than Gypsum.

RAMCO
HILUX

CALCIUM SILICATE Dry Walls & Ceilings

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



Fire Rating (System)

4 hrs (max)



Combustibility

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

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

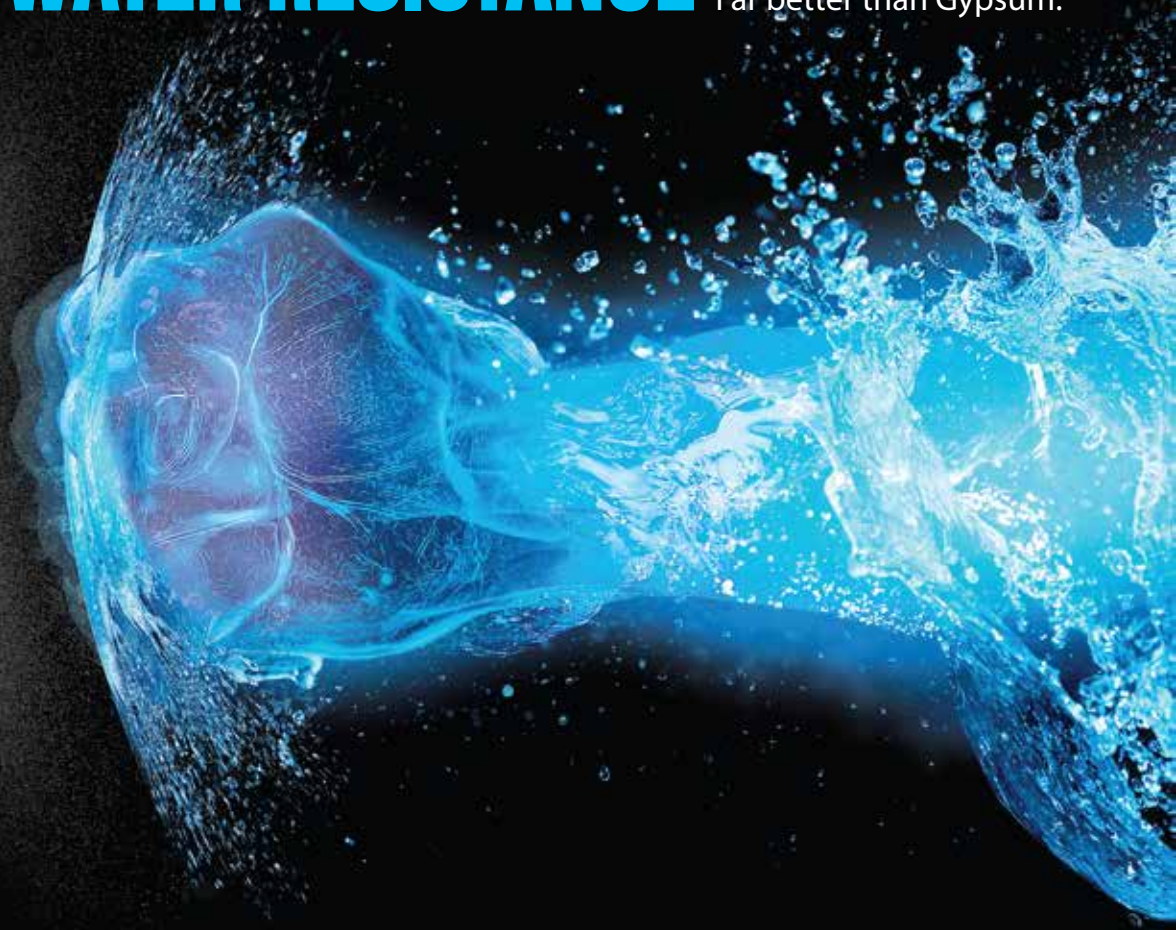
'P' not easily ignitable as per
(BS 476:Part 5-1968)

RAMCO **HILUX**

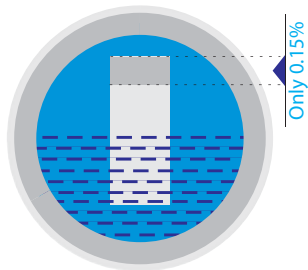
CALCIUM SILICATE Dry Walls & Ceilings

WATER RESISTANCE

More than Plywood.
Far better than Gypsum.



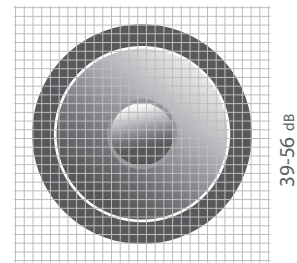
The only board dimensionally stable after 24-hour soaking in water!



Length Change in Water



No Fungus growth



Sound Insulation

Properties	Values
Thermal Conductivity-K	0.18 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)	< 0.2%
Alkalinity	10 pH

Properties	Values
Density	850 Kg/m ³
Flexural Strength	10 N/mm ² (Longitudinal) 5.5 N/mm ² (Transverse)
Impact Strength	1700 J/m ²
Compressive Strength	225 Kg/cm ²
Tensile Strength	60 Kg/cm ²

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CALCIUM SILICATE Dry Walls & Ceilings

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



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CALCIUM SILICATE Dry Walls & Ceilings

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

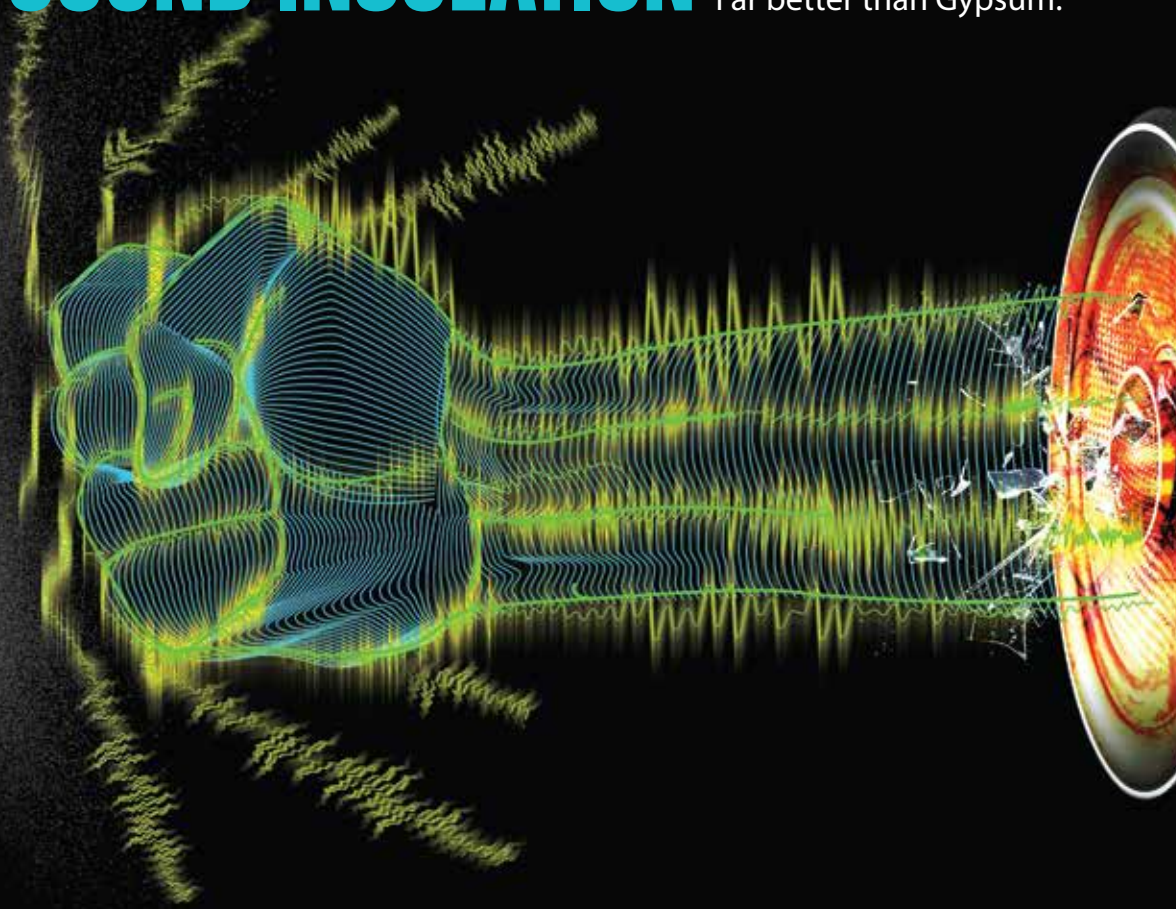
Hilux boards are also very flexible to design. 6mm thick Hilux boards can be bent (minimum radius-600mm) to provide curved surfaces. Boards will bend more easily, if bent across their long axes when they are wet or saturated.

RAMCO
HILUX

CALCIUM SILICATE Dry Walls & Ceilings

SOUND INSULATION

More than Plywood.
Far better than Gypsum.



Excellent acoustics with transmission class between **39 - 56 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 / 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 and wall papers.

RAMCO
HILUX

CALCIUM SILICATE Dry Walls & Ceilings

IMPACT RESISTANCE More than Gypsum. As good as Plywood*



* in the respective density range

Strong board at low density with high impact strength of 1700 J/m² @ 850 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
Airports and Metro Rail Stations	Light Reflection, Sound Insulation, Moisture Absorption
Food and Pharma Industries	Light Reflection, Sound Insulation, Moisture Absorption, No fungal/bacterial growth
Textiles	Energy Saving, Workability, Heat Insulation, Sound Insulation
Hospitals and Laboratories	Sound Insulation, Fire Resistance, Impact Resistance, Water Absorption, Moisture Absorption, Heat Insulation
Hotels, Resorts and Restaurants	Workability, Fire Resistance, Sound Insulation, Water Absorption, Moisture Absorption, Impact Resistance, Heat Insulation, Energy Saving
Offices, IT Parks & Educational Institutions	Fire Resistance, Sound Absorption, Water Absorption, Moisture Absorption, Heat Insulation



HILUX

CALCIUM SILICATE Dry Walls & Ceilings



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

HILUX



CALCIUM SILICATE Dry Walls & Ceilings

RAPID CONSTRUCTION

Faster than
Fibre Cement Board



Tremendous time saving. No painful waiting periods

Description	Testing Centre	Code	Result
Combustibility	PSB Corporation, Singapore	BS-476-Part-4-1970	Non-Combustible
Fire Propagation Index	CBRI, Roorkee	BS-476-Part-6-1981	1=3.79
Surface Spread of Flame	CBRI, Roorkee	BS-476-Part-7-1971	Class-1
Ignitability	CBRI, Roorkee	BS-476-Part-5-1968	"P" Not easily ignitable
Bending Strength	Anna University, Chennai	Across the fibre Along the fibre	129 Kg/cm ² , 84 Kg/cm ²
Young's Modulus	Anna University, Chennai		265 Kg/cm ²
Thermal Conductivity	Nirma University, Ahmedabad	ASTM C177 & ISO 8302	0.18 W/mK
1 x 12 mm Hilux board + Fillet on each side of 48 mm stud + 50 mm x 48 Kg/m ³ . Ceramic wool in the cavity.	CBRI, Roorkee	BS- 476-Part-20/22	One Hour

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

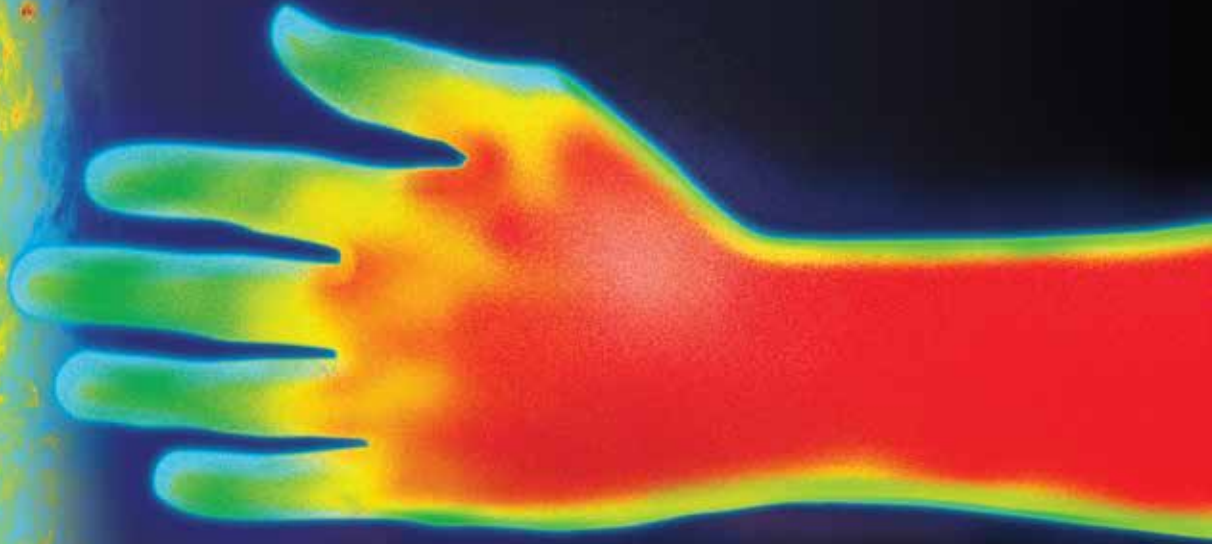
Light in weight with superior properties

Description	Testing Centre	Code	Result
2 x 10 mm Hilux boards on each side of 48 mm stud + 50 mm x 48 Kg/m ³ . Mineral wool in the cavity.	CBRI, Roorkee	BS-476-Part-20/22	One & Half Hour
2 x 12 mm Hilux board on each side of 48 mm stud + 50 mm x 64 Kg/m ³ . Ceramic wool in the cavity.	CBRI, Roorkee	BS-476-Part-20/22	Two Hours
1 x 12 mm Hilux board + Fillet on each side of 48 mm stud + 50 mm x 64 Kg/m ³ . Ceramic wool in the cavity.	CBRI, Roorkee	BS-476-Part-20/22	Two Hours
3 x 12 mm Hilux Boards on each side of 98 mm stud + 100 mm x 64 Kg/m ³ . Ceramic wool in the cavity	CBRI, Roorkee	BS-476-Part-20/22	Four Hours
2 x 12 mm Hilux Boards on each side of 146 mm stud + 100 mm x 48 Kg/m ³ . Glass wool in the cavity.	ARAI, Pune	ASTM E-90/150 10140-2 ASTM E-413	56 dB
Sound Absorption: NRC 8 mm thick Hilux Perforated tile (595 x 595 mm) mounted on 50 mm x 48 Kg/m ³ . Mineral wool in the cavity	NPL, New Delhi	As per IS : 8225-1987	0.85
Sound Absorption : NRC 10 mm thick Hilux board	NPL, New Delhi	As per IS : 8225-1987	0.30

THERMAL INSULATION

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

HILUX
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CALCIUM SILICATE Dry Walls & Ceilings



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)

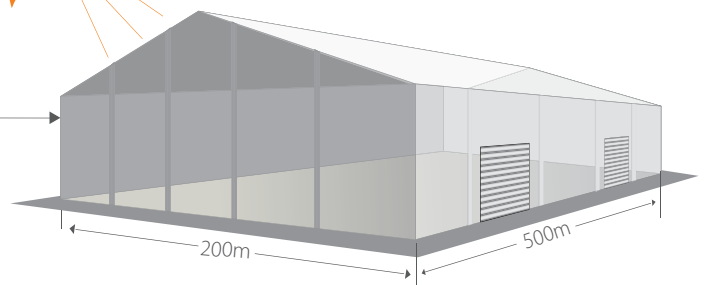
$$38^{\circ}\text{C} - 25^{\circ}\text{C} = 13^{\circ}\text{C}$$

$$\text{Area} = 200 \text{ m} \times 500 \text{ m} = 1,00,000 \text{ sq.m}$$



External
Temperature (38°C)

Internal
Temperature (25°C)



LUMINANCE

More than Gypsum
 Far better than Plywood



75% light reflectance even on plain boards. Better illumination. Bright ambience

Description	Fibre Cement Board	Hilux Board
U Value	4.38 W/m ² K	4.29 W/m ² K
Heat Loss - KWh (U value x area x temp. Difference /1000)	$4.38 \times 1,00,000 \times 13 / 1000 = 5694 \text{ KWh}$	$4.29 \times 1,00,000 \times 13 / 1000 = 5577 \text{ KWh}$
Heat Loss in a year (kWh x 300 days x 24 hours)	4,09,96,800 KWh	4,01,54,400 KWh
Overall loss caused by heat loss @ Rs. 9 per unit	$40,99,680 \times \text{Rs. } 9 = \text{Rs. } 36,89,71,200$	$40,15,440 \times \text{Rs. } 9 = \text{Rs. } 36,13,89,600$

Lower the U Value, better the heat insulation

Recurring Savings per year

on usage of Hilux Board for a 1,00,000 sq. m. area
 (Rs. 36,89,71,200 - Rs. 36,13,89,600)

Rs. 75,81,600

DESIGNER FINISH

Not possible with Gypsum
Only possible with Hilux

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CALCIUM SILICATE Dry Walls & Ceilings



Painted and Digitally Printed Boards that can be customised



* Conditions apply

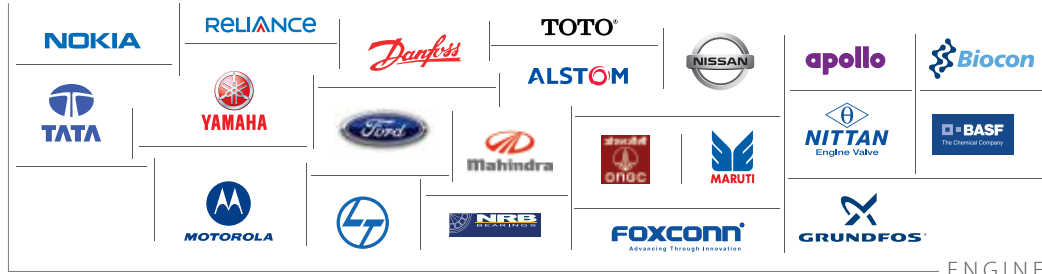
Unique Guarantee

Such is the confidence we have in the performance of our products that we are offering a 15-year Warranty on our Boards and a 25-year Warranty on our Tiles, covering free replacement of the Boards or Tiles if they deteriorate owing to a manufacturing defect.

Terms & Conditions of Guarantee:

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.



ENGINEERING



IT SECTOR



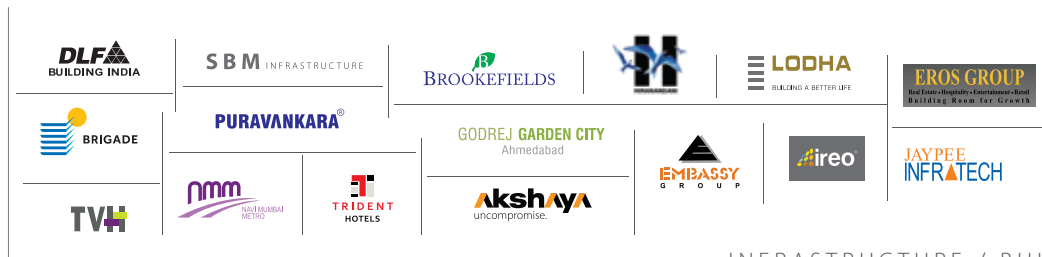
PHARMA / HOSPITALS



GOVT. SECTORS



TEXTILES



INFRASTRUCTURE / BUILDERS



OTHERS



Ramco Industries

Ramco Hilux is manufactured by Ramco Industries Limited, a part of the US\$ 1 billion Ramco Group with interests in cement, dry walls & ceiling products, cotton yarn, surgicals & software. Ramco Industries is one of the leading building materials manufacturers in South Asia and has been in the forefront of innovation, answering perplexing challenges with definitive solutions.

Ramco Hilux is manufactured at the ISO 9001 & ISO 14001 certified state-of-the-art plant in Keshwana, Rajasthan and distributed across India through its 300-strong dealer network.



Boards	Acoustic Tiles	Ceiling Tiles	Accessories
Chroma Walls	Tiny Hole perforated	Semi Pin Hole	Finishing Jointing compound, Fibre mesh tape
Wall Woods	Random Slit perforated	Semi Pin Hole square	
Visual Walls	Round Hole perforated	Tiny Stars	Frame work accessories G.I. Channels, Connecting clip, Soffit cleat, Rawl Plug
Marble Walls	Square Hole perforated	9 Squares	
	Tiny Slit perforated		
	Round Hole		Minor accessories Self drilling and tapping screws
	Straight Slit perforated		



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