



01  
**Pro**  
Professional's  
Choice

02  
**Ho**  
Home Owner's  
Choice

LAMBDABOARD<sup>®</sup>

# OVER RAFTER/TRUSS INSULATION

LAMBDABOARD<sup>®</sup> is the ideal choice for ceilings in residential and industrial buildings. It is manufactured in a continuous process with a closed cell PIR core bonded to 2 flexible substrates.

With the high compressive strength and excellent dimensional stability LAMBDABOARD<sup>®</sup> white mineral finish can be used in an over truss application, in a 40 mm/50 mm/60 mm thickness. This engineered system has been designed and approved by MITek Industries South Africa, leaders in roof truss design and manufacturing. The LAMBDABOARD<sup>®</sup> offers the best possible thermal properties commercially available. LAMBDABOARD<sup>®</sup> does not lose insulation properties during its lifespan.



# OVER RAFTER/TRUSS INSULATION

## DESIGN GUIDELINES

- Using MiTek purlin screws (Detail PCS-PSA), connections fixing battens/purlins to rafters through LAMBDABOARD® panels in combination with standard lateral bracing can be considered to provide sufficient lateral restraint to timber beams under gravity load
- Fix counter battens to top cord using the MiTek purlin screw as detailed in PCS-PSA dated 28/02/2019  
40 mm LAMBDABOARD® - 125 mm (blue) MiTek purlin screw  
50 mm & 60 mm - 165 mm (yellow) MiTek purlin screw
- Rafter bracing - refer to MiTek Industries
- If steel sheeting is used LAMBDABOARD® will not require a slip sheet
- Install fibrous insulation between the LAMBDABOARD® and the steel roof sheeting for sound absorption, if required

## INSTALLATION

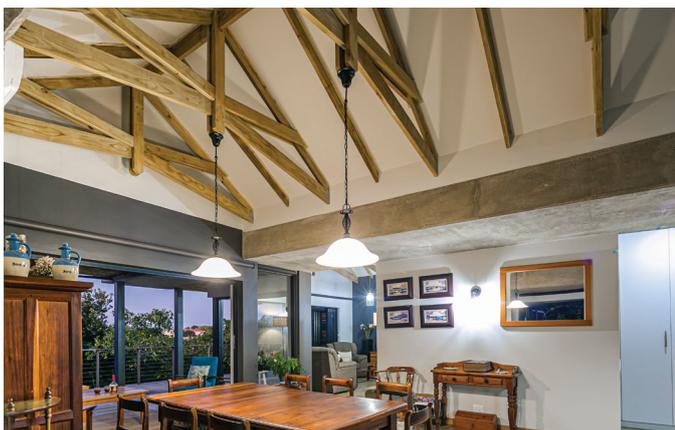
- Lay LAMBDABOARD® perpendicular to roof trusses, spanning a minimum of 3 trusses
- Purlin/counter batten must be fixed through LAMBDABOARD®
- LAMBDABOARD® side lap detail can be:
  - Butt joint – creating a neat seam
  - Skimmed/flush plastered
  - Aluminium sections (T/H-sections)
- If required LAMBDABOARD® should be end lapped over top chord to ensure a seamless joint
- LAMBDABOARD® will not require painting if installed correctly
- If flush plastered, then a bonding agent must be applied
- Install fibrous insulation between the LAMBDABOARD® and the steel roof sheeting for sound absorption, if required

## SPECIFICATION FOR BOQ

LAMBDABOARD® is a laminated polyisocyanurate core board with a minimum core density of 34 kg/m<sup>3</sup>, a minimum thickness of \_\_\_\_ mm; faced with \_\_\_\_ and laminated on both sides. Over rafter installation to be fixed in strict accordance to MiTek design details (PCS-PSA) 28/02/2019.

## LAMBDABOARD® R-VALUE

- 30 mm - 1,25 (Km<sup>2</sup>/W)
- 40 mm - 1,67 (Km<sup>2</sup>/W)
- 50 mm - 2,08 (Km<sup>2</sup>/W)
- 60 mm - 2,50 (Km<sup>2</sup>/W)



# OVER RAFTER/TRUSS INSULATION

**Step 1:** LAMBDABOARD® to be placed on top of the rafter's top cord. LAMBDABOARD® length to run perpendicular to rafter.

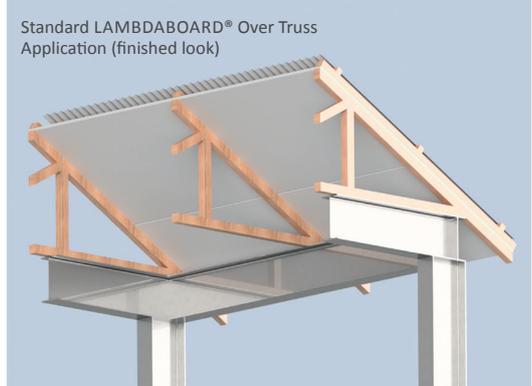
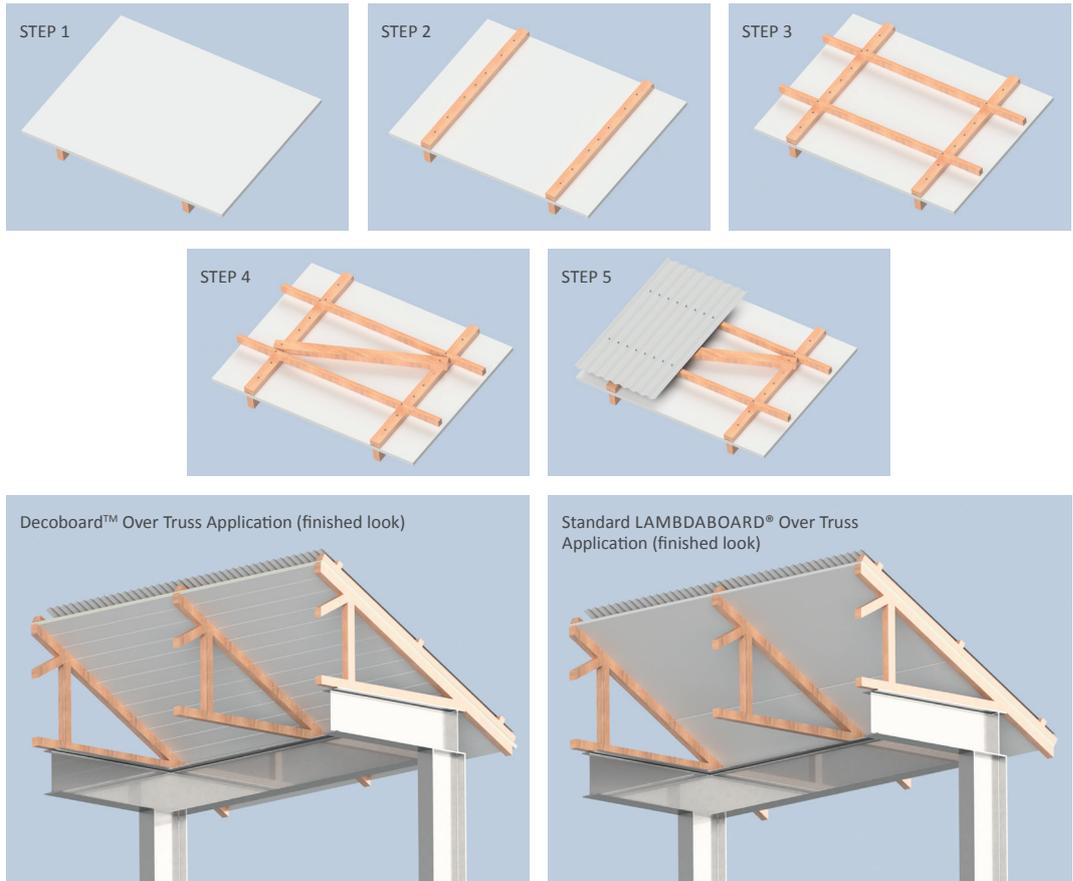
**Step 2:** 50 x 76 counter batten to be fixed with purlin fastener through LAMBDABOARD® into the rafter's top cord at 300 mm centres (see table for fastener length).

Fastener length	
LAMBDABOARD® THICKNESS	PURLIN FASTENER LENGTH
40 mm	125 mm
50 mm	165 mm
60 mm	165 mm

**Step 3:** Space purlins over counter battens as per required purlin spacings and fix purlins with purlin fasteners through the counter battens, LAMBDABOARD® and top cord of the rafter.

**Step 4:** Fix the rafter bracing diagonally between purlins and fix through counter battens, LAMBDABOARD® and top cord of rafter.

**Step 5:** Preferred sheeting to be fixed directly to the purlins in accordance to the roof sheeting manufacturer's specifications.



Installation – Counter Batten – Recommended installation for over truss application (Designed by Mitek's Truss Engineer)

**STEP 1**

**STEP 2**

**STEP 3**

**STEP 4**

**PLAN VIEW**

**3D VIEW**

LAMBDABOARD® THICKNESS	PURLIN FASTENER LENGTH
40mm	125mm
50mm	165mm
60mm	165mm

**STEP 1:** LAMBDABOARD® TO BE PLACED ON TOP OF THE RAFTER'S TOP CORD. LAMBDABOARD® LENGTH TO RUN PERPENDICULAR TO RAFTER

**STEP 2:** 50X76 COUNTER BATTEN TO BE FIXED WITH PURLIN FASTENER THROUGH LAMBDABOARD® INTO THE RAFTER'S TOP CORD AT 300mm CENTRES (SEE TABLE FOR FASTENER LENGTH)

**STEP 3:** SPACE PURLINS OVER COUNTER BATTENS AS PER REQUIRED PURLIN SPACINGS AND FIX PURLINS WITH PURLIN FASTENERS THROUGH THE COUNTER BATTENS, LAMBDABOARD® AND TOP CORD OF THE RAFTER

**STEP 4:** FIX THE RAFTER BRACING DIAGONALLY BETWEEN PURLINS AND FIX THROUGH COUNTER BATTENS, LAMBDABOARD® AND TOP CORD OF RAFTER.

**2-PLY USE 50X152(5) COUNTER BATTEN**

**3-PLY USE 50X152(5) COUNTER BATTEN**

**TITLE** LAMBDABOARD® OVER RAFTER APPLICATION

Region: 1A LAMBDABOARD® Tel: 011 118 9899  
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 Benoni, 1501 info@rigbam.com

Paper Size: **A3**

Drawing No: **STD-W-C-017**

Drawn by: **Y. Odendaal**

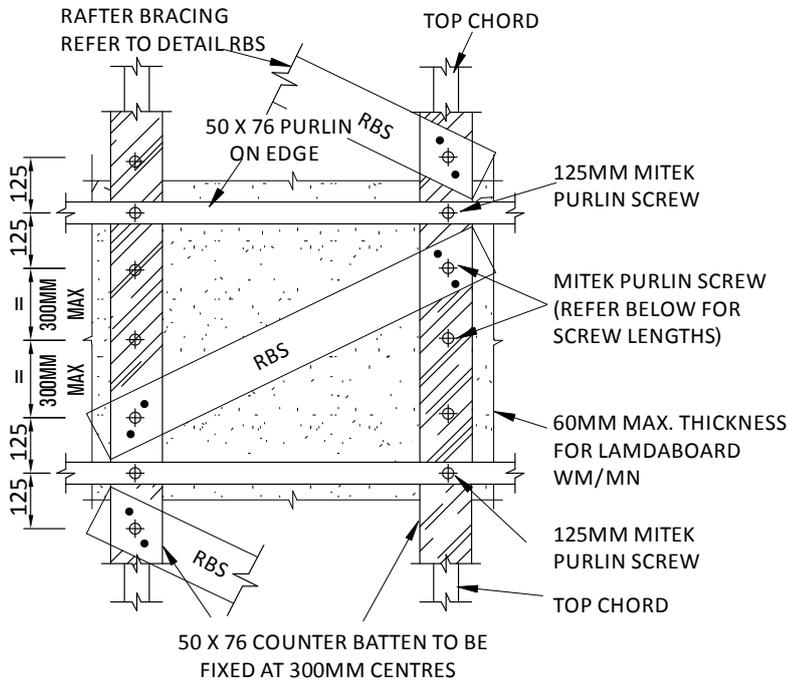
This drawing is the property of RIGBAM.

# OVER RAFTER/TRUSS INSULATION

50x70 TIMBER PURLIN CONNECTION DETAIL WHERE LAMDABOARD® WM/MN (60MM THICKNESS MAX.) OCCURS USING MITEK PURLIN SCREW (MAX TRUSS SPAN OF 15 METERS - SHEETED ROOF WITHOUT STIFFENER FRAMES)

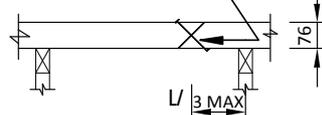
## DETAIL PCS-PSA

DATE: 28/02/2019



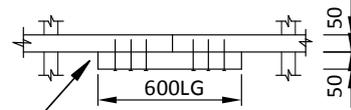
PLAN VIEW

1 NO. 100MM CLINCHED NAIL (SKEW)

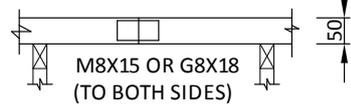


SPLAY CUT SPLICE

6 NO. 3.5MM DIA.X90MM WIRE NAILS

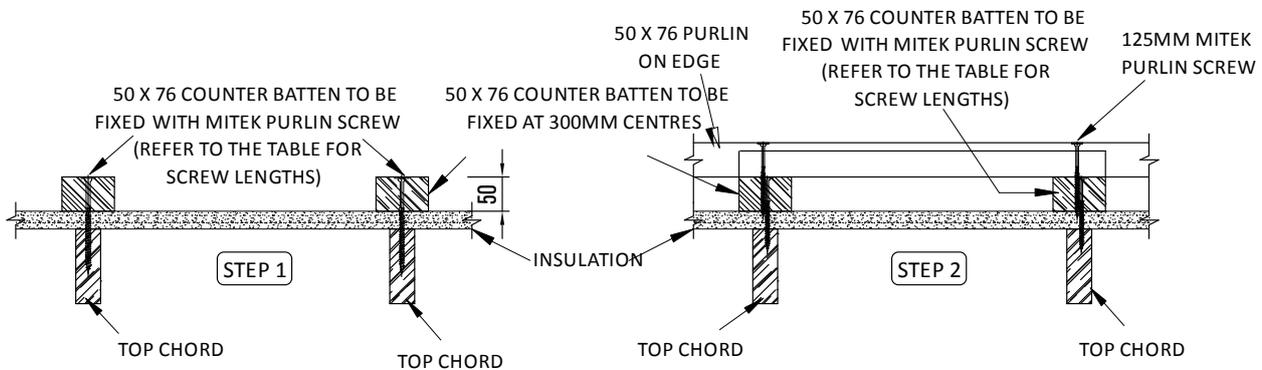


ALTERNATIVE TIMBER SPLICE



OPTIONAL PLATED SPLICE

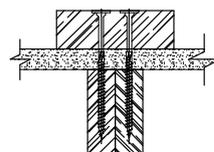
PURLIN SPLICE DETAILS



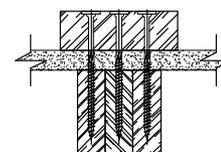
40MM LAMDABOARD® WM/MN	125MM (BLUE) MITEK PURLIN SCREW
50MM LAMDABOARD® WM/MN	165MM (YELLOW) MITEK PURLIN SCREW
60MM LAMDABOARD® WM/MN	165MM (YELLOW) MITEK PURLIN SCREW

**NOTE:**

- \* 40MM ISULATION USE 125MM (BLUE) MITEK PURLIN SCREW.
- \* FOR 50MM & 60MM INSULATION USE 165MM (YELLOW) MITEK PURLIN SCREW.
- \* CONNECTION OF PURLIN TO COUNTER BATTEN USE DETAIL PC-S



2-PLY USE 50 X 152(5) COUNTER BATTEN



3-PLY USE 50 X 152(5) COUNTER BATTEN

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