

# CERTIFICATE

## Engineering Evaluation Certificate

**IGNS 6408-03 I02R00**

**ISSUED** 25 November 2018  
**EXPIRY** 30 April 2019

**PIRMAX HR  
Insulation Panel  
Soffit Installation**

**This engineering certificate serves as a certificate from a professional fire engineer in accordance with Clause A2.2 (a)(v) of the National Construction Code Volume One Building Code of Australia 2016 Amendment 1**

Ignis Solutions reserves the right to amend or withdraw this assessment if information becomes available which indicates the stated fire performance may not be achieved

**PRESENTED TO**

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**Purpose**

The purpose of this Certificate is to document the applicable use and compliance of the PIRMAX HR Insulation Panel against the requirements of the National Construction Code – Volume One – Building Code of Australia 2016 Amendment 1 (BCA) for insulation to be used as a internal soffit lining. The relevant installation is as per the attached installation detail provided by PIRMAX. This Certificate is to be read in conjunction with PIRMAX HR Insulation Panel product evaluation and compliance report IGNS-6408 I02R00 dated 08.01.19.

**Product Description**

- The PIRMAX HR Insulation Panel is a Polyisocyanurate (PIR) core, sandwiched between two layers of foil facing autohesively bonded to the insulation core during manufacture.
- The PIRMAX HR Insulation Panel is available in the following thicknesses 20mm, 25mm, 30mm, 40mm, 50mm, 60mm, 70mm, 75mm, 80mm, 90mm and 100mm. The following evaluation considers all thicknesses.
- The panels are available in a silver, white and black finish.

**Scope of Use**

- PIRMAX HR Insulation Panel has been evaluated and considered to comply with the requirements of the BCA in the following applications:
  - Use on internal ceilings as a soffit lining (being exposed or concealed)

**Limitation**

- Within Australia, The Silver and White PIRMAX HR Insulation Panel can be used as an internal lining to ceilings where Group 1 products are required where the building or compartment is provided, with or without an Automatic Fire Sprinkler System.
- The Black PIRMAX HR Insulation Panel can be used as an internal lining to ceilings where a Group 3 product is required in a sprinkler protected building.

**National Construction Code – Volume One 2016 Amendment 1**

- Clause A0.2 (b) complying with the Deemed-to-Satisfy Solution.
- Clause A2.2 sub-clause (a)(v) as evidence to support that the PIRMAX HR Insulation Panel meets the nominated Deemed-to-Satisfy Provisions under an Engineering Certificate.
- Clause A2.2 sub-clause (a)(vii) as evidence to support that the PIRMAX HR Insulation Panel meets the nominated Deemed-to-Satisfy Provisions under an Engineering Certificate.
- Internal ceiling / soffit lining

Internal ceiling / soffit lining in such as exposed in carparks or concealed within a ceiling space

- Performance Requirement CP2 and CP4
  - Clause C1.10
    - Sub-clause (a)(ii) ceiling linings that comply with Specification C1.10 Clause 4

Silver / White finish	
Group Number	1
SMOGR <sub>RC</sub>	49 m <sup>2</sup> s <sup>-2</sup> x 1000.

Black finish	
Group Number	3
SMOGR <sub>RC</sub>	278.5 m <sup>2</sup> s <sup>-2</sup> x 1000.

**Benjamin Hughes-Brown**  
FIEAust CPEng NER APEC Engineer IntPE (Aust)  
Chartered Professional Engineer

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# INSTALLATION GUIDE

## Under Soffit Installation

### INSULATION FASTENERES

PIRMAX HR Panel can be fully secured to a concrete soffit by the use of approved insulation fasteners. 5 insulation fasteners can be used in suspended ceiling applications or where the boards will not be subject to external wind pressure or fire ratings. 11 insulation fasteners is recommended and the insulation fasteners must have a minimum head diameter of 35mm. For applications requiring a Group 1 Rating, the number of fixings per board should be 11.

The material of the fixings should also be appropriate for application, exposure and fire rating as advised by the fixing manufacturer.

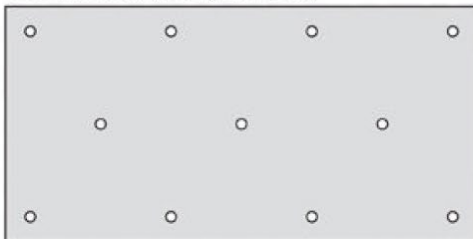
### DIRECT FIXING TO SOFFITS

1. The fasteners should be evenly distributed over the whole area of the board. Install 4 fasteners evenly across each length, no less than 50mm and no greater than 150mm in from the edge.
2. Board joints can be either staggered or squared and taped with a minimum 75 mm wide high quality aluminium foil tape. When taping, ensure the surfaces are clean, sound and free of dust and contaminants. Use a tape applicator to apply appropriate pressure to the tape.
3. Installers should check their specific project to make sure there are not any non-standard fixing requirements. Where the board may be subject to external wind pressure, the requirement for additional fixings should be assessed in accordance with appropriate Australian wind load standards.

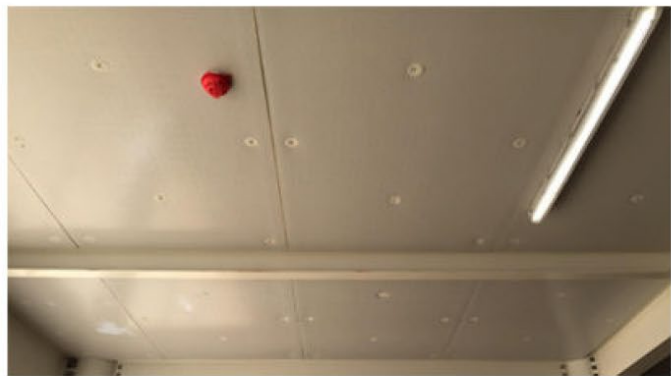
### PENETRATIONS

If there are fire collar penetrations in the soffit, then a clearance of a minimum of 25mm must be maintained between the fire collar and the insulation board.

11 insulation fastener pattern (recommended)



5 insulation fastener pattern (suspended ceiling/no external wind pressure applications)



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