

Building Product Information Sheet

Class 1

Product Name:

Insulation Fastener

Date of Report:

15 / 09 / 2023

Product Line:

GTIXF-140C Insulation Fasteners

Product Description and its intended use:

Insulation washered fasteners to secure insulation panels from 25mm to 130mm. for use with ICCONS GTI-140C compact insulation fastening tool and most low-velocity powder actuated tools assembled with an insulation fastener kit attached. This pre-assembled drive pin is the fastest insulation panel fixing method, making it ideal for fastening insulation onto ceilings, walls and facades.

Key technical specifications:

- Product type: Ballistic Point Insulation Fastener
- Finish options: Plastic
- Material: High density polyethylene (HDPE)
- Fastener diameter, and suitable insulation thickness varies per size. Refer to document 'GTIF Insulation TDS' for specific values per part, available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>

Product Identifier

GTIF Insulation Fasteners

Place of Manufacture:

Overseas

Manufacturer:

ICCONS PTY LTD

Importer:

Sesto Fasteners Limited

Address: 5e Piermark Drive
Rosedale, Auckland
Postcode: 0632
Website: www.sestofasteners.co.nz
Email: orders@sestofasteners.co.nz
Phone: +64 94158564
NZBN: 9429041704103

Relevant Building Code Clauses:

- B1 Structure: Performance clauses B1.1
- B2 Durability: Performance clauses B2.2
- C2 Prevention of Fire: Performance clause C2.1
- F2 Hazardous Building Materials: Performance clause F2.3.1

Statement on how the building product is expected to contribute to compliance:

- B1 Structure: Performance clause B1.1
 - ICCONS Insulation Fasteners have been designed to secure insulation panels from 25mm to 130mm, for use with ICCONS GTI-140C compact insulation fastening tool and most low-velocity powder actuated tools assembled with an insulation fastener kit attached. This pre-assembled drive pin is the fastest insulation panel fixing method, making it ideal for fastening insulation onto ceilings, walls and facades.
 - ICCONS Insulation Fasteners are available in a range of sizes, designed to match different insulation panel thicknesses and suitable tools to ensure proper fit. The ICCONS GTIF-160C Compact Gas Nailer is recommended for the fastening of insulation from 25mm to 120mm. Refer to document 'Insulation Fastener PDF' to find the suitable insulation thickness, fastener head diameter and appropriate installation tool per part, available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>
 - B2 Durability: Performance clauses
 - ICCONS Insulation Fasteners have been assessed for their performance in concrete 20MPa at 0.15 kN (15kg), with a minimum spacing of 100 mm, and a minimum edge of 100 mm. For cut and modified panels it is recommended a minimum of 4 fixings per m2. Recommended Resistance is calculated from the characteristic ultimate load with a safety factor greater than >3. Refer to document 'GTIF Insulation TDS' for this information, available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>
 - Due to the nature of Powder Actuated and Gas Tool insulation panel installation it is very difficult to observe each and every insulation fixing that has been fastened correctly to the concrete as the insulation panel shields the installer from visually observing correct installation. Powder Actuated and Gas fixings into concrete are not always successful as the base material may not be suitable i.e. too hard. To determine suitability of the base material a suitability test is recommended and clearly identified and discussed in AS/NZS 1873.1:2003 Appendix A. Refer to document '4001.1 Insulation Fasteners Installation Instructions' for proper installation procedure required to ensure durability of the fixing, available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>
 - C2 Prevention of Fire: Performance clause C2.1
 - ICCONS GTIF Insulation Fasteners have been tested for its reaction-to-fire as part of a ceiling only (soffit) system using Kingspan Kooltherm K 10 G2 Soffit Board in accordance with AS ISO 9705:2003 (R2016). The fasteners retained the insulation in the ceiling for the full duration of the test due to the shaft of the fasteners remaining intact as they were protected from the heat by the phenolic foam insulation. At 600 seconds, only minimal debris had fallen from the ceiling and was limited to an area directly above the burner. After 600 seconds the burner output was increased from 100 kW to 300 kW and a total heat release rate (HRR) in the room of 1 MW (flash over) was reached at 648 seconds into the test. However, the test was not terminated after flash over and was continued for the full 20 minutes. At the end of the test, debris was limited to small charred pieces of foam and foil facing and most of the phenolic insulation foam remained attached to the ceiling. An average smoke production rate of 0.52m³/s was recorded over the entire test period. For further information on test report please contact ICCONS Australia, and refer to document 'Insulation Fastener PDF' available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>
 - Ensure that the fire rating is suitable for your application. Testing data is available on part number GTIF060 and for a specific material and test regime only as per report. Refer to document 'GTIF Fire Report' available in the link below:
<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>
 - F2 Hazardous Building Materials: Performance clause F2.3.1
 - ICCONS Insulation Fasteners are safe when handled.
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Limitations on the use of the building product:

- Take caution when installing insulation panels to overhead concrete slab. Due to the nature of Powder Actuated and Gas Tool insulation panel installation it is very difficult to observe each and every insulation fixing that has been fastened correctly to the concrete as the insulation panel shields the installer from visually observing correct installation. Powder Actuated and Gas fixings into concrete are not always successful as the base material may not be suitable i.e. too hard. To determine suitability of the base material a suitability test is recommended and clearly identified and discussed in AS/NZS 1873.1:2003 Appendix A. Refer to document '4001.1 Insulation Fasteners Installation Instructions' for the precautionary guidelines required for best possible results, available in the link below:

<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>

- Use of the ICCONS® GTIXF-160C Compact Gas Nailer is recommended for fastening of insulation from 25mm to 120mm.
- Use of the ICCONS GTIXF-160C does not require a license, but training expertise and good judgment is required.
- Perform a Base Material suitability test and install a trial fixing when installing ICCONS Insulation Fasteners. Ensure that you select the appropriate insulation fastener that matches insulation panel thickness and the appropriate tool. Manually check every installed insulation fastener as you proceed to fasten the entire insulation panel. Refer to document '4001.1 Insulation Fasteners Installation Instructions', for the full procedure guidelines, available in the link below:

<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>

- DO NOT USE INSULATION FASTENER THAT DOES NOT MATCH PANEL THICKNESS. See the document '4001.1 Insulation Fasteners Installation Instructions' and document 'GTIF Insulation TDS' available in the link above, and document 'GTIF Insulation TDS' to select the appropriate fastener for your application.
- Refer to document 'GTIF Fire Report' in the link above to find the specific fire report testing performed on GTIF060. Note, this test was performed with one size only, against base material 'Kingspan Kooltherm K10 G2 Soffit Board', and to the test regime only as per report.

Design requirements that would support the use of the building product:

- ICCONS GTIF Insulation Fasteners have been designed for use in the following applications:
 - Fastening insulation to ceilings
 - Fastening insulation to facades
 - Fastening EPS insulation
- ICCONS GTIF Insulation Fastener features that support its use:
 - Extremely fast insulation fastening system, significantly faster than conventional methods
 - For panels from 25 mm to 130mm in thickness
 - Suitable for overhead applications
 - Pre-assembled with drive pin
 - Available in clear finish

Refer to documents 'Insulation Fastener PDF' and 'GTIF Insulation TDS' available in the link below for design requirements per part:

<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>

Installation requirements:

Refer to document '4001.1 Insulation Fasteners Installation Instructions', and 'Insulation Fastener PDF' for installation requirements and use of the ICCONS GTIXF-160C Compact Gas Nailer, available in the link below:

<https://sestofasteners.co.nz/products/insulation-fastener?variant=38520693653673>

- Ensure that you perform the precautionary steps as outlined in the document '4001.1 Insulation Fasteners Installation Instructions' available in the link above, to ensure best possible results. Due to the nature of Powder Actuated and Gas Tool insulation panel installation it is very difficult to observe each and every insulation fixing that has been fastened correctly to the concrete as the insulation panel shields the installer from visually observing correct installation.

- Powder Actuated and Gas fixings into concrete are not always successful as the base material may not be suitable i.e. too hard. To determine suitability of the base material a suitability test is recommended and clearly identified and discussed in AS/NZS 1873.1:2003 Appendix A.

- Base material suitability test:

- Obtain a drive pin from an insulation fastener and hammer to determine base material suitability.

- Using the hammer knock the drive pin into the base material observing;

1. If there is a clear impression in the base material and drive pin point is not blunt, proceed and do a trial fixing (see instructions below).

2. If drive pin point is blunt – Base material is too hard and fastening should not be made using forced entry system, use drill and fix solution.

3. If base material shows cracks - It's too brittle for fixing, use drill and fix solution.

4. If fastener sinks into the base material - Base material is too soft for fixing, use drill and fix solution.

- Trial fixing:

Using an assembled insulation washer with drive pin shoot the fastener into the base material without the insulation panel in position, this will allow you to observe the fastening result. If fastening is satisfactory proceed to installation procedure. If trial fastening reflects results highlighted in points 2, 3 or 4 above use drill and fix solution.

- Powder Actuated and Gas Tool Installation Procedure Guidelines - Insulation Fasteners

- Select correct insulation fastener that matches insulation panel thickness and suitable tool, DO NOT USE INSULATION FASTENER THAT DOES NOT MATCH PANEL THICKNESS. See figure 1 in document '001.1 Insulation Fasteners Installation Instructions'

- Assemble the insulation fastener onto the tool and while holding the insulation panel in place force the insulation fastener through the panel until fully seated on the base material, proceed by shooting the fastener into the base material.

Using your fingers manually check the installed fastener by pulling on the insulation fastener to see if it is fixed correctly. See figure 2 in document as above.

- If fastener feels loose or is visibly damaged, remove fastener, cover hole and fix new fastener away from the failed fastener.

- Manually check every installed insulation fastener as you proceed to fasten the entire insulation panel. Repeat process for entire job. See figure 2 as above.

- Installation steps:

1. Select the correct size fixing suited to the insulation thickness. Then place fixing onto nose piece of tool.

2. Push fastener through board until head is flush with the board.

3. Press trigger of tool to fasten nail into base material - fixing complete.

Maintenance requirements:

N/A, no on-going maintenance required.

Is the building product subject to warning or ban under section 26?:

No

