**Specifier Notes:**

Ramset T3 Insulfast System is a cost-effective, one step efficient insulation fastening system without the use of adhesives, drilling, or cutting spindle insulation anchors. The System is up to 4 times faster to install thereby reducing costs.

Ramset T3 Insulfast System fastens rigid and semi-rigid board insulation directly to all substrates - concrete, hollow block, and steel studs.

Ramset T3 Insulfast System provides an efficient thermal barrier solution for insulation attachment.

Ramset T3 Insulfast fastening system is consistent, reliable, and clean-looking,

Ramset T3 Insulfast gas-powered tool has automatic power adjustment, and ability to fasten insulation in tight spaces, around roof penetrations, through pipes and sprinkler systems.

Ramset T3 Insulfast System may be used year round, not restricted by cold temperature or wet substrates.

Ramset T3 Insulfast System has an insulation pin capacity between 25 mm – 200 mm (1” – 8”).

Ramset T3 Insulfast System is Made in Canada.

SECTION 07 21 00.01 – BOARD INSULATION FASTENER SYSTEM

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Insulation fastening system for rigid and semi-rigid insulation boards to facilitate an efficient thermal barrier within insulated interior and exterior assemblies.

* + - * 1. Related Requirements:

Section 07 21 13 “Board Insulation”.

Section 07 26 00 “Vapour Retarders”

Section 07 27 00 “Air Barriers”.

* + - 1. ACTION SUBMITTALS
				1. Product Data:

Include manufacturer’s product data sheets.

* + - * 1. Certificates:

Submit product certification letters from independent testing agencies that product complies with specified performance characteristics and for use with specified air and vapour retarder membranes.

* + - * 1. Manufacturer’s instructions:

Submit manufacturer’s installation instructions.

* + - 1. QUALITY ASSURANCE
				1. Installer Qualifications:

An entity that employs installers and supervisors who are trained to install mechanically attached insulation fasteners.

* + - 1. DELIVERY, STORAGE, AND HANDLING
				1. Comply with manufacturer's written instructions for handling and storing.
1. PRODUCTS
	* + 1. PERFORMANCE REQUIREMENTS

**Performance Tables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STEEL STUDS** |  |  |  |  |
| **Fasteners** | **Allowable / Ultimate Pullout Load lbs (kN)** |
| **Steel Gauge** | **22GA** | **20GA** | **18GA** | **16GA** |
| IG625S – IG150S | 20/120 (0.09/0.53) | 33/200 (0.15/0.89) | 46/280 (0.21/1.25) | 60/360 (0.27/1.60) |
| **CONCRETE** |  |  |  |  |
| **Fasteners** | **Concrete Strength PSI (Mpa)** | **Allowable / Ultimate Tension Loads lbs (kN)** |
| IG625 – IG6150 | 3600-6500 (25-45) | 35/211 (0.15 / 0.94) |
| **HOLLOW CONCRETE BLOCK** |  |  |  |
| **Fasteners** | **Allowable / Ultimate Tension Loads lbs (kN)** |
| IG625 – IG6150 | 35/184 (0.15 / 0.82) |

**Selection Chart**

|  |  |  |
| --- | --- | --- |
| **FASTENERS FOR STEEL STUDS (Colour coded black)** |  | **FASTENERS FOR CONCRETE AND CMU (Colour coded White)** |
| **Part Number** | **Description** | **Insulation Thickness** |  | **Part Number** | **Description** | **Insulation Thickness** |
| IG625S | 1” Insulation Fastener w/fuel (w/2” exterior stud pin) | 25 mm (1”) |  | IG625 | 1” Insulation Fastener w/fuel | 25 mm (1”) |
| IG638S | 1-1/2” Insulation Fastener w/fuel (w/2” exterior stud pin) | 38 mm (1-1/2”) |  | IG 638 | 1-1/2” Insulation Fastener w/fuel | 38 mm (1-1/2”) |
| IG650S | 2” Insulation Fastener w/fuel (w/2” exterior stud pin) | 50 mm (2”) |  | IG650 | 2” Insulation Fastener w/fuel | 50 mm (2”) |
| IG663S | 2-1/2” Insulation Fastener w/fuel (w/2” exterior stud pin) | 63 mm (2-1/2”) |  | IG663 | 2-1/2” Insulation Fastener w/fuel | 63 mm (2-1/2”) |
| IG675S | 3” Insulation Fastener w/fuel (w/2” exterior stud pin) | 75 mm (3”) |  | IG675 | 3” Insulation Fastener w/fuel | 75 mm (3”) |
| IG689S | 3-1/2” Insulation Fastener w/fuel (w/2” exterior stud pin) | 89 mm (3-1/2”) |  | IG689 | 3-1/2” Insulation Fastener w/fuel | 89 mm (3-1/2”) |
| IG6100S | 4” Insulation Fastener w/fuel (w/2” exterior stud pin) | 100 mm (4”) |  | IG6100 | 4” Insulation Fastener w/fuel | 100 mm (4”) |
| IG6125S | 5” Insulation Fastener w/fuel (w/2” exterior stud pin) | 125 mm (5”) |  | IG6125 | 5” Insulation Fastener w/fuel | 125 mm (5”) |
| IG6150S | 6” Insulation Fastener w/fuel (w/2” exterior stud pin) | 150 mm (6”) |  | IG6150 | 6” Insulation Fastener w/fuel | 150 mm (6”) |
| IG6178S(\*) | 7” Insulfast Fastener w/fuel (w/2” exterior stud pin) | 175 mm (7”) |  | IG6178(\*) | 7” Insulfast Fastener w/fuel | 175 mm (7”) |
| Footnotes \* | Not recommended for ceiling applications. |  |  | IG6200(\*) | 8” Insulfast Fastener w/fuel | 200 mm (8”) |

* + - * 1. Thermal Performance:

Ramset T3 Insulfast System provides a 99% efficient thermal barrier.

* + - 1. INSULATION FASTENERS
				1. Insulation fastener:

General Description:

Fastener:

High density polyethylene (HDPE) 60 mm (2-3/8”) holding diameter washer, zinc plated heat treated carbon steel pins, gas fired direct fasten type, pin depth length to suit insulation thicknesses in accordance with Selection Chart.

Pin has integrated cap for an efficient thermal barrier with point designed to pierce rigid and semi-rigid insulation.

Fasteners are colour coded to substrate applications. White fasteners for concrete and CMU applications and black fasteners for steel applications.

No substitutions permitted.

1. EXECUTION
	* + 1. INSTALLATION
				1. Installation

Use manufacturer’s recommended gas powered tool to mechanically fasten insulation to suitable substrate.

Use manufacturer’s recommended fastener length to suit insulation board thickness.

Spacing:

Install in accordance with insulation manufacturer’s recommended spacing and as required to suit project design requirements.

Place not less than 5 equally spaced insulation fasteners (dice 5 pattern) per 610 mm x 1220 mm (24” x 48”) insulation board area.

Position fasteners 75 mm (3”) from insulation board edges.

END OF SECTION