TECHNICAL DATA SHEET

INSULMAX®
RETROFIT WALL INSULATION METHOD

The Insulmax® Retrofit Wall Insulation Method is a process developed to insulate the existing exterior and interior walls of pre-built homes. It holds CodeMark certification to be installed in the exterior walls of all types of homes, with or without building paper, and is approved by all BCA's in New Zealand. It is installed using a 16mm hole through all common exterior claddings or interior lining dependent upon customer preference. The soft white, water-resistant insulation is rated at R2.8 per 100mm thickness.

Insulmax® Insulation

Insulmax® insulation is manufactured in Europe to ISO 9001 quality standards as a blown cavity wall insulation for the proprietary use of the Insulmax® group. It is soft white mineral wool treated with water repellent agents so that it is highly water-resistant and is rated as zero resistance to the movement of water vapour i.e breathable. It is inert, non-combustible and at installed density will not settle or shrink over time. It is installed dry with no binders or glues and is highly resistant to the absorption and transfer of liquid water.

Insulmax® Install

Insulmax® insulation can only be installed by licensed installers using proprietary installation machinery developed by Insulmax and capable of installing at desired install density using a 16mm installation hole. High-resolution thermal imaging equipment is used to determine that all areas have been installed.

Install includes the finishing of external claddings to a weathertight and durable standard which is covered by a 50 year written guarantee (excluding paint).

Scope of Use

All types of external walls with or without building paper:

- Weatherboard
- Brick and block masonry veneer and double brick
- Fibre Cement
- Roughcast and rendered plaster etc
- All house types via internal lining

Steps to Insulmax Your Home

1. Property assessment and application to local council
2. All cavities accessed by a 16mm hole and filled with Insulmax® insulation
3. Install points filled and finished to a weathertight and finish durable

Environment

The Insulmax wall insulation system is an environmentally sustainable choice for today's conscious consumers. By retaining existing wall claddings and linings, Insulmax saves tonnes of construction waste ending up in landfills every year.

Insulmax® is made from inert minerals and is composed of a minimum 84% post-consumer waste. It is CFC and HCFC free and is classified as having zero Ozone Depletion Potential and zero Global Warming Potential.

Certification and compliance with New Zealand Building Code

Certified since May 2016 under the CodeMark compliance scheme to retrofit insulation to the exterior walls of all types of homes and complies with requirements of clauses:

When installed in accordance with the conditions and limitations of this certificate, the Insulmax® insulation will comply with;

- B1 Structure – B1.3.1. B1.3.2, B1.3.3 (a),
- B2 Durability – B2.3.1 (a),
- F2 Hazardous Building Material – F2.3.1.

The building work will comply with;

- E2 External Moisture – E2.3.2.

When installed in accordance with the conditions of this certificate, the INSULMAX® insulation will contribute to compliance with;

- C3 Fire Affecting Areas Beyond the Fire Source – C3.7 (a),
- H1 Energy Efficiency – H1.3.1 (a), (b), H1.3.2E.

The existing building will continue to comply with the following Building Code Clauses to at least the extent as before the installation of INSULMAX® insulation;

- B1 Structure – B1.3.1,
- C2 Prevention of Fire Occurring – C2.2,
- E2 External Moisture – E2.3.2, E2.3.5,
- G9 Electricity – G9.3.1,
- H1 Energy Efficiency – H1.3.1.

The Insulmax Retrofit Wall Insulation Method is approved by all local body councils as an application for building consent or Sch1 Sec 2 exemption. Applications can only be made by a licensed Insulmax representative.

CODEMARK™
CM 70028

Production

Consistent and high manufacturing standards comply with requirements of CE Marking 93/68/EEC and BS EN 14064: 2010 and EN 13172: 2012 and BSI Quality Assurance Standards BS EN ISO 9001 : 2012.

Thermal Properties

Cladding	Without any insulation	With conventional wall segment insulation	With Insulmax® Blown Mineral Fibre Wall Insulation	NZBC requirements for new build walls structure (SI & Central Plateau)
Brick Veneer	R0.30	R2.3	R2.8	R2.0
Weatherboard	R0.32	R2.3	R2.3	R2.0

Notes:
Both tested according to EN12667:2001
All figures from Design Navigator (https://www.designnavigator.solutions/CRC.php)
Total thermal resistance of the wall structure is dependent upon existing construction variables.

Tests and Results

Properties	Result	Test/Method/Standard	Test Results
Resistance to the Movement of Water Vapour	Negligible resistance to the movement of water vapour	EN14064	**W**ater vapour can freely pass though the product.
Liquid Water Absorption	Negligible	EN 1609	Non-hygroscopic
Reaction to Fire	Non-combustible	EN ISO 1182 & 1716	A1
Settling Rating	Settling of less than 1% or too negligible to be measured	EN 14064-1 :2010	S1
Effect on Existing Building Materials and Electrical Wiring	Has no detrimental affect on existing building elements and does not react with TPS wiring. *Older rubber insulated wires should be replaced before the installation of any insulation*		