



Datasheet

August 2016

Supafil® CarbonPlus

Blow-in Glasswool Insulation

Description

Supafil CarbonPlus is an unbonded, virgin glasswool insulation designed with optimal thermal properties and excellent coverage and blowing characteristics.

Application

Supafil CarbonPlus is especially designed for installation in existing cavities that require silicone treated insulation. Supafil CarbonPlus is an unbonded, non-combustible glasswool product that requires no mixing on site.

Supafil CarbonPlus should only be installed by Approved Installers, when used in closed cavity applications, to ensure the highest quality installed performance.

Features

Excellent thermal performance

- Fills all gaps and voids, creating a thermal barrier against outside air and better temperature control.

Sustainable

- Each bag contains the equivalent of over 45 recycled glass bottles, with up to 80% recycled glass content.

Installation

- Blows fast, easy installation by Approved Installers.

Performance

Thermal

Supafil CarbonPlus has a thermal conductivity of 0.039 W/mK (AU), 0.038 W/mK (NZ) when installed at a density of 25kg/m³.

Benefits

- Maximum - performance in walls, underfloor and cathedral/skillion roof cavities.
- Silicone treated for extra moisture protection.
- Sustainable. Up to 80% recycled glass content.
- Each bag contains the equivalent of over 45 recycled glass bottles.
- Fast, easy installation by approved installers.



CODEMARK™

AU - GM-CM30066 RevA1
NZ - GM-CM30067 RevA

Supafil® CarbonPlus

Permanence

- Non-combustible, non-corrosive.
- Will not rot, mildew or deteriorate.
- Silicone treated for continued durability in high moisture areas.

Benefits

- Resists heat flow with an R-Value of:

Nominal thickness (mm)	AU R-Value (m ² K/W)	NZ R-Value (m ² K/W)
50	1.3	1.3
90	2.3	2.3
100	2.5	2.6
140	3.5	3.6
190	4.8	5.0
240	6.1	6.3

Durability

- Silicone treated for extra moisture protection.

Noise reduction

- Supafil CarbonPlus reduces sound passing through cavity walls.

Energy conservation

- Reduces fuel usage and utility bills for heating and air conditioning.

Thermal performance

Supafil CarbonPlus provides you with a choice of R-Values based on the installed thickness and installed weight per square metre. The table above shows the minimum requirements for obtaining the desired R-Value.

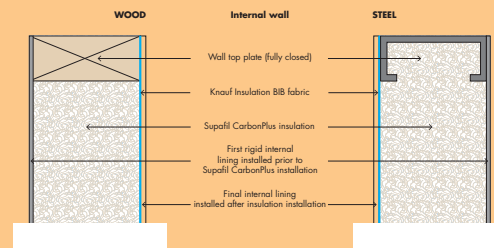
The stated thermal resistance (R-Value) is provided by installing the required density at the thickness (per the manufacturer's instructions).

Supafil CarbonPlus is designed to be installed at a minimum density of 25kg/m³. Supafil CarbonPlus will achieve a thermal conductivity of 0.038 W/mK (NZ) and 0.039W/mK (AU). When installed at various thicknesses Supafil CarbonPlus will achieve R-Values that with NZS 4214 are able to meet the minimum requirements of NZS 4218 and the Energy Efficiency requirements of BCA for walls, skillion roofs and under floors.

Supafil CarbonPlus is not designed for mixing with other products, adhesives or binder systems as these may affect the thermal performance and is not recommended by the manufacturer.

Gaps, voids and penetrations

Supafil CarbonPlus fills all gaps and voids around service penetrations such as water pipes and electric wiring and any other obstructions or unusual design details, ensuring thermal and acoustic performance is created. Supafil CarbonPlus allows quicker and more efficient filling of wide cavities where multiple layers of conventional insulation would normally be installed. Supafil CarbonPlus saves installation time by minimising the steps needed to fully insulate tight corners and hard to reach areas.



Specification Guide

The insulation shall be Supafil® CarbonPlus insulation 0.039 W/mK (AU), 0.038 W/mK (NZ), 25kg/m³, CodeMark certified to meet the provisions of the BCA. The product will be non-combustible, CFC/HCFC free, zero ODP and GWP, glasswool insulation with high post-consumer recycled glass content. It will be manufactured under Quality Assurance Standards ISO 9001:2008 and ISO 14001:2004 by Knauf Insulation and shall be installed in accordance with the instructions issued by them.

Supafil® CarbonPlus

Technical data

Fire Hazard Properties

- Ignitability: 0
- Spread of flame: 0
- Heat evolved: 0
- Smoke developed: 1
(When tested in accordance to AS/NZS 1530.3:1999).

Vapour resistivity

- Water vapour resistivity of 5.00 MN. s.g.m

Corrosion

- No greater than sterile cotton.

Microbial growth (ASTM C 1338)

- Does not support microbial growth.

Non-combustibility

- Non-combustible (AS 1530.1-1994).

Equipment required

To achieve the R-Value, this product must be applied with a pneumatic blowing machine and a corrugated hose with a minimum 5mm internal corrugation, a minimum length of 45m and a diameter of at least 60mm. Coils in the hose should not be less than 10m in diameter.

Packaging

Supafil CarbonPlus is packaged in a strong, poly bag that offers excellent protection from abuse, dust and moisture.

Knauf Insulation packages stack without slipping and are easy to handle and store.

Exposure to water or moisture

Insulation does not provide thermal benefit if wet. Glasswool insulation will not sustain mould growth. If the material is wet it should be replaced.



Supafil® CarbonPlus

Australia National Construction Code Series (NCC 2015) Building Code of Australia (BCA)

- CP1/CP2/CP4 and P2.3.1 – Fire Resistance.
- FP1.4 / P2.2 and FP 1.5 / 2.2.3 - Weatherproofing and Dampness.
- FP5.5 / FP5.3 and P2.4.6 – Sound Insulation.
- GP2.1 and P2.3.3 – Heating Appliances.
- JP1 and P2.6.1 – Energy Efficiency.
- Supafil CarbonPlus thermal resistance has been determined by AS/NZS 4859.1. and will contribute to meeting these requirements.

New Zealand Building Code:

- Clause B2 DURABILITY: Performance B2.3.1(a) not less than 50 years and B2,3,1(b) 15 years. Supafil CarbonPlus will meet these requirement.
- Clause E3 INTERNAL MOISTURE: Performance E3.3.1. Supafil CarbonPlus will contribute to meeting this requirement.
- Clause F2 HAZARDOUS BUILDING MATERIALS: Performance F2.3.1. Supafil CarbonPlus meets this requirement and will not present a health hazard to people.
- Clause H1 ENERGY EFFICIENCY: Performance H1.3.1(a) and H1.3.2 E. Supafil CarbonPlus will contribute to meeting these requirements.
- Supafil CarbonPlus thermal resistance has been determined by AS/NZS 4859.1.
- Supafil CarbonPlus is an acceptable solution in terms of the New Zealand Building Code.



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