

## FirmaSoft® Batts: Ceiling

### Non Combustible thermal glasswool insulation for residential ceiling applications

#### Description

FirmaSoft® Ceiling Batts are made from flexible and resilient glasswool for thermal and acoustic insulation of residential ceilings. FirmaSoft® Batts are available in various sizes and densities to fit standard timber spacings.

#### Application

FirmaSoft® Ceiling Batts are used in ceiling applications when constructing new homes or retrofitting existing buildings for increased thermal efficiency. The FirmaSoft® ceiling batts insulation range is available in various thermal R-values and dimensions, ensuring there is an effective and efficient product solution for every application. FirmaSoft® Batts, renowned for their firmness, are low itch, easy to cut and designed to friction fit standard ceiling joist spacings.

#### Product limitations of use

- Not to be used/exposed to weather in any condition including prior, during and after installation.
- Check the plasterboard ceiling manufacturers guide for any weight limitations on ceilings.
- This product cannot be used as a water or vapour barrier.
- Modifications not permissible, as suitability and/or compliance may be compromised.
- Product needs to be allowed to fully recover before use (cannot be used crushed).

#### Features and benefits

<b>Firm to fit</b>	→	Friction fitted to remain in place without slumping for continual thermal performance.
<b>Softer to touch</b>	→	Comfortable to handle during installation.
<b>Low dust formula</b>	→	Reduced dustiness and mess during installation.
<b>Recover to their natural thickness quickly</b>	→	To meet required thermal performance.
<b>Australian made</b>	→	Made in Australia for Australian conditions.
<b>Codemark Certified</b>	→	Assurance that product meets energy efficiency provisions of the National Construction Code (NCC).

### Product data

Material R-value m <sup>2</sup> K/W	Thickness mm	Width mm	Length mm	Batts per pack	m <sup>2</sup> per pack	Coverage per pack m <sup>2</sup>	Packs per bale	Old product code	New product code
R3.5	175	430	1160	16	8.0	9.0	4	900286	4006079
		580	1160	10	6.7	7.6	6	900287	4006080
R4.1	215	430	1160	10	5.0	5.6	5	900288	4006081
		580	1160	10	6.7	7.6	6	900289	4006082
R5.0	220	430	1160	8	4.0	4.5	5	900290	4006083
		580	1160	8	5.4	6.1	5	900291	4006084
R6.0	250	430	1160	6	3.0	3.4	5	N/a	4020903
		580	1160	6	4.0	4.5	5	N/a	4020892

### Physical properties

Property	Test method/standard	Result	Unit
Thermal resistance R-value	AS/NZS 4859.1	Complies	m <sup>2</sup> K/W
Moisture absorption	When exposed to environmental conditions of 50°C and 95% relative humidity for four days	< 0.2	% by volume
Maximum service temperature	ASTM C411/C447	350	°C
Anti-fungal	Resistance to fungal growth	PASS	

### Fire hazard properties

FirmaSoft® Ceiling Batts exhibit the following characteristics when tested in accordance with the following standards:

Property	Test method/standard	Result
Combustibility	AS 1530.1	Non-combustible
Early Fire Hazard Indices	AS/NZS 1530.3	
Ignitability Index		0
Spread of Flame Index		0
Heat Evolved Index		0
Smoke Developed Index		0-1

BAL Compliance

AS 3959

Low-FZ

### Compliance

#### NCC2019

- When correctly specified and installed, the product complies or assists to comply with below NCC clauses and relevant standards.
- Complies with AS/NZS 4859.1 as referenced in NCC 2019, Volume 1 Clause J1.2(a) and NCC 2019, Volume 2 Clause 3.12.1.1.
- Thickness and density specifications cover the requirements of the Acceptable forms of Construction for sound insulation according to NCC 2019 Volume 1, Specification F5.2 and NCC 2019 Volume 2, 3.8.6.1.
- Classified as Non-combustible according to AS/NZS 1530.1, therefore complies with the requirements of NCC Volume 1 C1.9(a) and, wherever a non-combustible insulation material is required according to NCC 2019 Volume 2.
- When tested to AS/NZS 1530.3 this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices as required by NCC 2019 Volume 1, clause C1.10 (ix) and Specification C1.10 Clause 7 for insulation materials.
- Complies with the requirements of AS3959 Bushfire Attack Level Low-FZ in walls, floors and ceilings.
- Complies with all state variations to the NCC 2019.

#### NCC2022

- When correctly specified and installed, the product complies or assists to comply with below NCC clauses and relevant standards.
- Complies with AS/NZS 4859.1 as referenced in NCC 2022 Volume 1 J4D3(1) and ABCB Housing Provisions section 3.12.2(1).
- Classified as non-combustible according to AS/NZS 1530.1, therefore complies with the requirements of NCC clause C2D10 (1).
- When tested to AS/NZS 1530.3 this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices as required by NCC clause C2D11 (1)(i) and Specification S7C7 for insulation materials other than sarking material.

### Flow resistivity

Acoustic performance of FirmaSoft® Batts products used in sound absorption applications can be measured by their resistance to air flow, this is recognised as flow resistivity.

Flow resistivity performance is valuable when evaluating products of the same thickness and density that have varying fibre attributes.

Tested in accordance with ASTM Standard C522-03 Standard Test method for Airflow Resistance of Acoustic Materials. The following table rates the flow resistivity of FirmaSoft® Batts products:

Product	Thickness mm	Rayls/m
FirmaSoft® Batts: Ceiling R3.5	175	2,700
FirmaSoft® Batts: Ceiling R5.0	220	4,500

### Health and safety

Fletcher Insulation glasswool products are manufactured from FBS-1 Glasswool Bio-Soluble Insulation®.

### Environmental properties

FirmaSoft Batts are manufactured from up to 80% recycled content which would otherwise go to landfill and be unsuitable for alternative manufacturing processes.

Fletcher Insulation avoids the use of Ozone Depleting Potential (ODP) substances in the manufacture or composition of its FBS-1 Glasswool Bio-Soluble Insulation®.

The use of these Fletcher Insulation products provides the use of Zero ODP insulation while also ensuring that no harmful levels of Volatile Organic Compounds (VOCs) are released. This allows the incorporation of environmentally preferable insulation whilst also maintaining indoor air quality.

### Maintenance and conditions of use

- Product should be kept dry, not to be exposed to weather in any condition including prior, during and after installation.
- Product need to be correctly installed in the right stud width and depth.
- Product should be installed without compression to keep its claimed R.
- If used with any other products except Sisalation, confirmation of suitability must be reviewed.
- Where Insulation can be Inspected, ensure any tears in the facing are repaired with appropriate tape as highlighted in the product's installation guidelines.
- When product is installed as per the product installation guidelines, no further maintenance is required for this product.

### Technical specification

When specifying, please state the following:

The insulation material shall be Fletcher Insulation FirmaSoft® Batts: Ceiling R \_\_\_\_\_ m<sup>2</sup> K/W  
(Material R-value) \_\_\_\_\_ (thickness) x \_\_\_\_\_ (width) x \_\_\_\_\_ (length) mm.

The following performance attributes must be specified:

- Product must be FBS-1 Biosoluble
- Product must recover after packaging is removed, to the requirements of AS4859.1
- Fibre diameter must be between 4.8 and 6.5 um

Follow installation guidelines available from [www.insulation.com.au](http://www.insulation.com.au) for correct installation method.

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