Fletcher Insulation
Building Better, Together

Retail, Hospitality & Entertainment

Building better shopping & leisure places, together

Retail centres, cafes, restaurants, hotels, cinemas

At Fletcher Insulation, we're dedicated to helping Australia's leading architects and builders create more sustainable, comfortable, and inviting hospitality, entertainment, and retail environments.

Thoughtful design and effective insulation help provide attractive destinations for people to shop, relax and be entertained.

Not only is insulation an important factor in making retail, hospitality, and leisure centres more energy efficient, it's often central to providing a good customer experience, helping create more comfortable, dynamic places for all.

Whether you are designing an expansive community shopping centre, a luxurious hotel, or an immersive cinema complex, insulation is a fundamental building material, helping to control noise, temperature, moisture condensation, and air quality.

Long-lasting and sustainable, our insulation solutions promote energy efficiency, reducing both the environmental footprint and energy costs. Providing passive cooling and warming, they contribute to a sustainable future without compromising on comfort.

With Fletcher Insulation, you can be confident our industry-leading insulation solutions will meet your criteria for quality and cost-effectiveness. Our dedicated technical and service teams are here to support architects and specifiers in designing best-practice retail, hospitality, and leisure centres that prioritise comfort and sustainability.

Creating sustainable, healthy, and comfortable environments for people to shop, relax, and enjoy

Exceptional customer experiences start with a comfortable environment.

An outing to the theatre can be marred by poor sound quality. The relaxed ambience of a favourite restaurant is spoilt by noise amplified by too many hard surfaces. A good night's sleep is ruined by noisy neighbours or from the nightclub downstairs.

Insulation reduces unwanted noise, ensuring customers can shop, dine, and enjoy their experience with pleasure. It also helps maintain a consistent and comfortable temperature throughout the day, enhancing the thermal comfort of patrons.

Fletcher Insulation provides architects and specifiers with the insulation materials they need to create energy-efficient, comfortable buildings.

Our range of sustainable insulation materials—in walls and ceilings, under floors and roofs, around building services and HVAC—help designers build more comfortable leisure and retail environments.

How insulation helps to create environments for a better experience

- In Australia, the hotel industry accounts for about 12%, and the retail sector is responsible for an estimated 36% of energy use in non-residential buildings. These are some of the most energy-intensive commercial structures, primarily due to air conditioning, space heating, and water heating demands. Insulation works to increase a building's energy efficiency, reducing the thermal load on HVAC systems.[1]
- In hospitality, an inviting atmosphere improves the customer experience and encourages them to return. Insulation is an essential part of the building fabric design, improving customer comfort by minimising drafts, overheating, and noise, enhancing the guest experience.
- Controlling external and internal sound leakage is crucial to reducing noise disturbance and supporting patron satisfaction, particularly in a concert hall or movie theatre.

At Fletcher Insulation we'll help you specify the optimal insulation materials for your retail, hospitality, and entertainment building projects.

We provide solutions that contribute to creating:

- a healthier indoor environment
- reduced energy solutions to control costs and environmental impact
- higher Green-Star ratings and WELL certification
- ensuring safe, fire-resistant construction systems

Taking a holistic approach to the health and wellbeing of people

Ensuring a positive customer experience is essential for business sustainability in restaurants, retail stores, and hospitality venues.

A comprehensive approach incorporating effective insulation and intelligent building design further enhances people's wellbeing.

The health of people working in retail, hospitality, and entertainment environments is of particular concern. Research shows that when it's very cold or hot, there's a higher chance of getting hurt or sick at work.[2]

In extreme thermal conditions, discomfort can lead to adverse behavioural consequences. These include disorientation, impaired judgment, decreased concentration, reduced vigilance, carelessness, and fatigue. Chronic ailments like respiratory and skin diseases can also worsen due to factors linked to extreme temperatures. Good IAQ supports respiratory health and overall comfort.

Well-designed buildings consider thermal comfort, acoustic quality, indoor air quality, energy efficiency, access to natural elements, flexibility, and user-centred design. They enhance physical, mental, and emotional wellbeing, and provide exceptional and sustainable experiences.

The importance of acoustic comfort

Acoustic comfort is often underrated as a key concern for a building's occupants. But we know that continual and unavoidable noise exposure negatively impacts individuals' wellbeing and health.

- Noise pollution can be a significant source of discomfort in retail, entertainment, and hospitality settings.[3]
- Shopping centres are places full of sensory stimuli. Excessive noise is a common problem having adverse effects on verbal communication and the perception of the spoken word.[4]
- The continuous operation of noise sources like ventilation and air-conditioning systems raises sound levels, significantly degrading acoustic quality, especially in atrium spaces. Insulation decreases sound reverberation in walls and ceilings, helping to avoid sensory overload.
- Insulation materials can effectively control noise transmission, reducing the impact of external sounds and internal disturbances. Smart designs incorporate sound-absorbing materials, layout optimisation, and proper room acoustics to create tranquil and enjoyable environments.

Fletcher Insulation products are designed on the principle that quality acoustic design supports the health and wellbeing of all people in our community.

Controlling indoor thermal comfort, air quality and building condensation

Maintaining the right temperature, ventilation, and level of humidity indoors enhances people's wellbeing.

In a retail, hospitality, and leisure setting, it also increases their enjoyment and satisfaction with the experience.

Factors contributing to poor thermal efficiency include unwanted air leakage and insufficient ceiling, underfloor, and wall insulation.

The key to Fletcher Insulation's approach is to devise a tailored solution for each type of building project. Whether you're planning a large multi-use shopping complex or a boutique luxury resort, there's always a solution to match.

We offer a range of insulation solutions that help reduce reliance on artificial cooling and heating systems and improve indoor air quality.

Protecting people and buildings from fire

Fire-safe workplaces safeguard lives and assets. Designing a fire-resilient building means prioritising the daily needs of its occupants.

For architects shaping retail and leisure spaces, this means choosing materials that enhance safety.

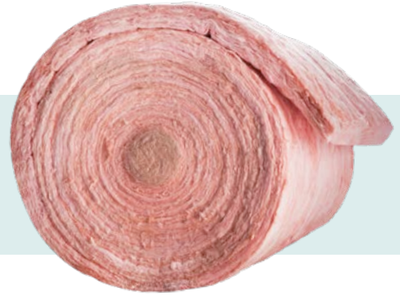
Passive fire protection strategies, using fire resistant materials to slow or impede the spread of fire or smoke by compartments, give occupants time to escape, and minimise risk to property and equipment, and the operation of businesses.

As well as meeting the National Construction Code (NCC), the standards and minimum requirements of insurers also come into play. It's possible that opting for inferior insulation solutions could inflate insurance premiums.

By integrating Fletcher Insulation's glasswool products into external cladding and internal partitions, you guarantee compliance with Australian Standards for combustibility—a crucial aspect of fire safety.

Fletcher Insulation steps up with a proven range of insulation solutions. Crafted from non-combustible glasswool and low flammability materials for building membranes, our products prioritise the wellbeing of people and buildings alike. Our expert team assists designers and specifiers to select the ideal fire-safe solution for your project's unique challenges.

Fletcher Insulation's glasswool products are deemed non-combustible when tested to AS 1530.1, offering compliance for use in external cladding and internal partition applications, providing peace of mind.



For the good of the planet

As the cost of energy rises, businesses are looking for ways to conserve their operating costs. That's why our range of energy efficient solutions make commercial sense for property owners and managers.

It's also reassuring to know that Fletcher Insulation continues to invest in sustainable manufacturing processes.

We help reduce the carbon footprint of the built environment by:

- making insulation with zero Ozone Depletion Potential (ODP)
- ensuring our insulation products support healthy indoor air quality and contain no harmful levels of Volatile Organic Compounds (VOCs)
- using recycled materials in our manufacturing process wherever possible—up to 80% of the glass used in our glasswool insulation is recycled, transforming a waste product, and avoiding landfill.

SUSTAINABLE
Made up of up to **80% recycled** content that might otherwise be destined for landfill.

Around 80% of the glass used in our glasswool insulation production is recycled.

Insulation for the building envelope

A high-performance building envelope can make a big difference to the energy efficiency of any building. It also has a significant role to play in the overall comfort and satisfaction of the people within it.

With a holistic approach to developing the best insulation solutions for all types of commercial buildings, we consider a range of performance parameters. These include energy efficiency, thermal bridging, fire resistance, internal comfort, acoustics, moisture, air tightness, and durability.

Roofing

Whether you're designing a multi-use retail space or a large, air-conditioned cinema complex, calibrating the right acoustic and thermal environment is always a challenge.

Effective roof insulation will help minimise noise disturbance and provides a protective thermal, condensation control, and fire-resistant layer.

Fletcher Insulation has a comprehensive range of insulation solutions to meet the most demanding performance requirements for retail, hospitality, and entertainment buildings.

- The Permastop® range of building blankets have outstanding thermal and acoustic properties. Suitable for metal roofs, Permastop® reduces heat transfer and minimises the internal reverberation and flow of distracting noise from outside the building, such as rain on a metal roof. Permastop® also minimises the risk of condensation that can form in metal cladding.
- To reduce thermal bridging, we recommend using Roof Razor combined with Permastop®. Roof Razor allows full recovery of the insulation blanket between the safety wire mesh and metal cladding. By combining these products, your building will achieve optimum thermal performance and meet or exceed NCC requirements.
- For buildings with a concrete roof structure, your best choice is our Pink® Thermal Slab product. With excellent thermal and acoustic absorption properties, this product drives energy efficiency, and helps control noise and temperature fluctuations common to concrete roofs. Pink® Thermal Slab provides excellent fire performance for ceiling lining applications, achieving AS 5637.1 Group 1 NCC fire classification. Further, is AS4859.1 Codemark certified for Thermal performance, providing confidence and certainty through the issue of a Certificate of Conformity and demonstrating 'evidence of suitability' requirements of the NCC.

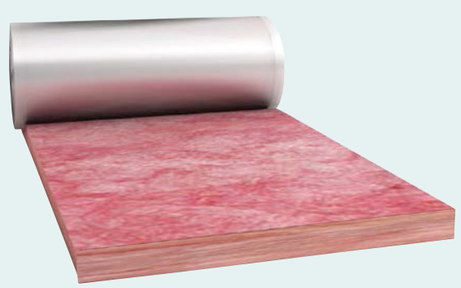
By specifying products from the Fletcher Insulation range, you can be assured the effective management of indoor temperature, moisture, and humidity for your building project. Not only will this help prevent structural damage down the track, but you'll also be protecting the health of all building users.

External walls

External wall insulation has an important role in the health and safety of people at work and at play.

As well as playing a fundamental role in energy efficiency and helping maintain optimal thermal conditions within the building, it improves acoustics as well. It must also meet stringent fire performance requirements.

- For buildings with a structural steel frame and external cladding, we recommend Sisalation® Vapawrap Residential Wall Wrap with Pink® Partition insulation between studs. Sisalation® Vapawrap is designed for use in Australia's colder climate zones, and where a vapour permeable membrane is needed.
- All Fletcher Insulation glasswool insulation suitable for external walls is CodeMark certified for thermal performance.
- For hotter, more humid climates, specifiers opt for Sisalation® Multipurpose (456) taped and sealed, along with Pink® Partition insulation between studs. Sisalation® Multipurpose (456) is an extra heavy duty, flexible water and vapour barrier, designed as a second layer of protection from water ingress for commercial wall and roofing applications.



FletcherSpec pro®

When selecting the ideal insulation products for your design, we recommend using the FletcherSpec Pro® design specification tool. It quickly calculates Total System R-values to meet all National Construction Code (Section J) requirements. With outstanding data integrity and calculation accuracy, this handy tool is kept up-to-date with the latest NCC criteria, giving architects and specifiers complete confidence when specifying insulation products.

Download FletcherSpec Pro® at the App Store.

Fitout applications

Insulation in internal walls, floors, and ceilings helps manage the acoustic environment, energy efficiency, and thermal comfort. Our range of fitout solutions are long-lasting and deliver exceptional performance under varying environmental conditions.

Ceilings, partitions, services and plant rooms

Whether you're fitting out a multi-use shopping complex or a hotel, insulation has an important role to play in the fire resilience and thermal and acoustic performance of all types of buildings.

- Pink® Partition insulation is perfect for commercial metal-framed partitions, wall systems, and suspended ceilings. As well as delivering energy efficiencies, it features excellent thermal and acoustic qualities, making it a great choice for projects like hotels, restaurants, and shopping centres, where noise control is essential.
- Pink® Partition is made in Australia and is non-combustible. It not only protects lives but also limits damage in case of a fire. This means less disruption and lower costs if the worst happens.
- Architects and designers can be confident in specifying Pink® Partition which is AS 4859.1 CodeMark certified for Thermal performance through the issue of a Certificate of Conformity. This certificate serves as evidence of meeting the suitability requirements outlined in the National Construction Code (NCC).
- For internal wall systems designed with staggered stud walls, we recommend FI22 Insulation blanket – a low density, lightweight insulation blanket. Alternatively, for a blanket with superior acoustic properties, specify the FI32 Semi Rigid Insulation blanket which is made from up to 80% recycled glass. Unfaced, the F132 product commonly applied as an internal liner for air conditioning sheet metal ductwork, is also suitable for wall application due to its ease of installation.
- For ceilings, including suspended ceilings, Pink® Partition insulation is the best product to use, especially where acoustic performance is a priority.
- In partition and ceiling applications where a higher density acoustic insulation over 32kg is required, Rockwool Safe 'n' Silent Pro is recommended. Rockwool Safe 'n' Silent Pro is a range of stone wool insulation used for interior applications where superior thermal and acoustical performances as well as fire resistance are required. Always consult your acoustic engineer &/or our technical team to determine the most suitable solution for your specific application.
- Acting as both a noise barrier as well as a noise absorber, Soundlag 4525C is an excellent insulation product for reducing noise break-out from pipes, valves, fan housings, and ductwork.
- For plant and machinery rooms with concrete or stud walls, we recommend Pink® Thermal Slab. As well as offering exceptional fire performance, this product is effective in controlling the noise levels and temperature fluctuations of roofs, floors, and walls. Made from rigid glasswool board combined with a Sisalation® reflective foil laminate adhered to one side, this insulation is available in a variety of thicknesses to suit local conditions.

Made in Australia from up to 80% recycled content, the Pink® Partition range is designed to meet AAAC recommendations—from low to high ratings. It's another example of how Fletcher Insulation provides architects and specifiers with the products they need to deliver optimum acoustic performance in all retail and hospitality spaces.

Thickness mm	Density kg/m3	Material R-value	Sound Absorption Coefficients at Frequencies (Hz) of:										
			100	125	250	500	1000	2000	3150	4000	5000	NRC	αw
50	11	R1.2	0.15	0.16	0.63	0.88	0.98	0.99	1.00	1.01	1.06	0.85	0.85 (H)
50	14	R1.3	0.14	0.12	0.59	0.86	1.00	1.02	1.02	0.99	1.04	0.85	0.85 (H)
50	24	R1.4	0.16	0.17	0.69	1.02	1.09	1.03	1.07	1.04	1.06	0.95	0.95
50	32	R1.5	0.08	0.16	0.66	1.04	1.10	1.02	1.03	1.05	1.03	0.95	1.00
75	11	R1.8	0.26	0.27	0.91	0.99	1.04	1.00	1.06	1.05	1.11	1.00	1.00
75	14	R1.9	0.24	0.24	0.91	1.01	1.03	1.00	1.08	1.03	1.06	1.00	1.00
75	32	R2.2	0.18	0.32	0.98	1.10	1.08	1.05	1.07	1.06	1.09	1.05	1.00
90	24	R2.5	0.36	0.43	1.16	1.11	1.05	1.07	1.04	1.07	1.06	1.10	1.00
90	32	R2.7	0.32	0.58	1.14	1.05	1.05	0.99	1.05	1.04	1.03	1.05	1.00
110	11	R2.5	0.40	0.42	1.08	1.10	1.02	1.09	1.09	1.06	1.06	1.05	1.00

HVAC

Hotels consume between 30% and 50% of their energy in heating, ventilation, and air conditioning (HVAC) systems.[5]

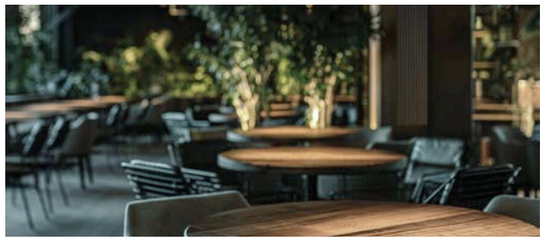
The retail sector is also one of the more energy-intensive industries in Australia. Most retailers must maintain a constant temperature for customer comfort and product quality.[6]

Acoustic and thermal comfort is crucial for audiences in movie theatres and performing arts auditoriums. High-performing HVAC systems are essential for maintaining optimal conditions in these settings.

Fletcher Insulation's HVAC solutions help businesses operate more sustainably. With proven thermal performance, they'll help contain the cost of heating and cooling, and create a more comfortable environment while minimising energy costs.

Our sound attenuation products complete our holistic systems approach by minimising HVAC noise.

Non-combustible and safe to use, our HVAC range is flexible, lightweight, and strong—ideal for all types of retail, hospitality, and entertainment environments.

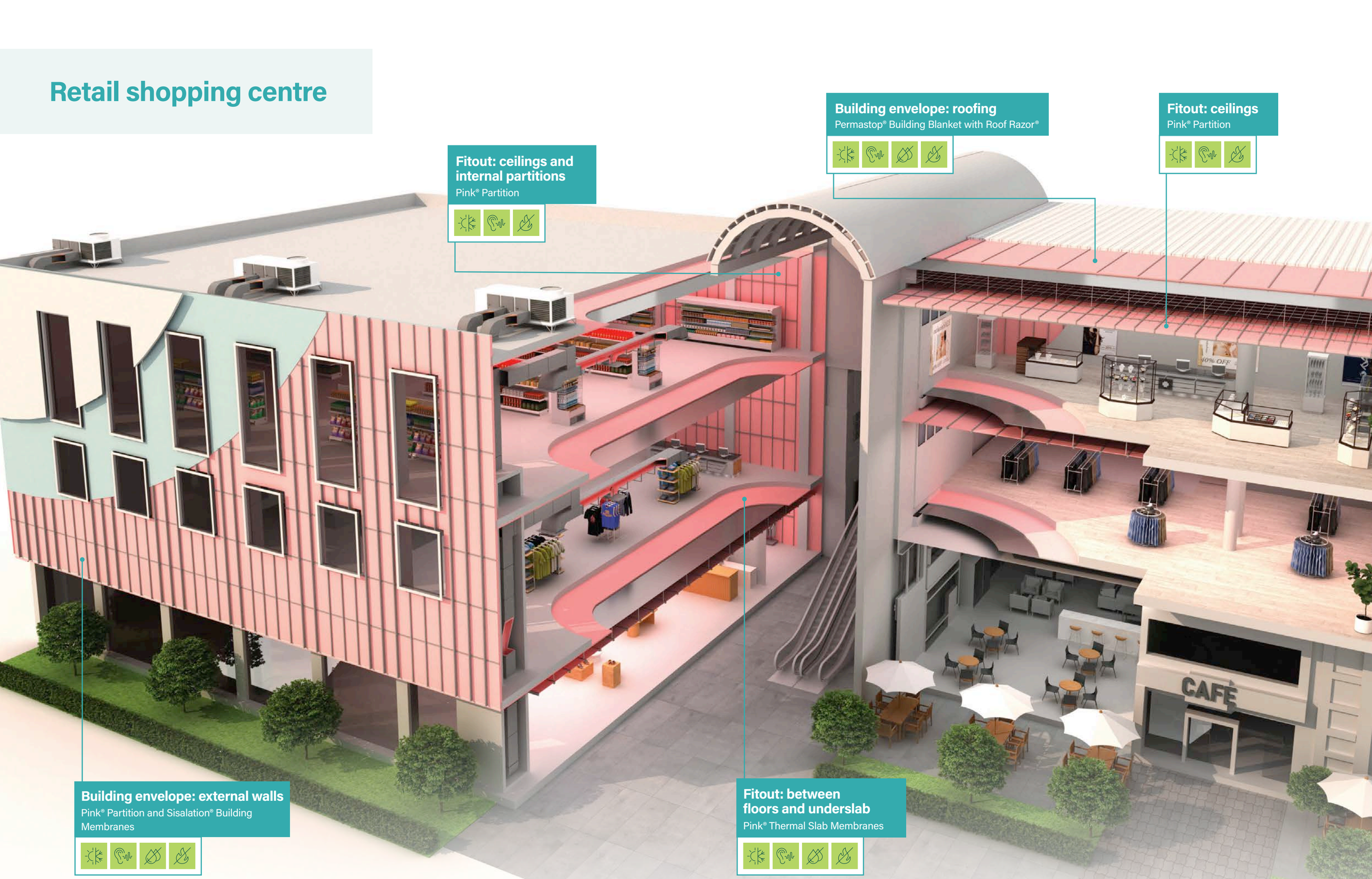


SINIAT

When choosing building insulation materials, designers can rely on the Siniat systems, certified using insulation products by Fletcher Insulation. The Siniat range of selection tools are robust, save time and effort and include:

- **Siniat Blueprint** a handy technical manual for lightweight steel and timber frame construction; includes complete wall and ceiling insulation solutions for commercial and multi-residential projects.
- **Siniat System Selector** is an online tool that enables selection of the most appropriate and cost-effective wall and ceiling systems.
- **Siniat's library of BIM and CAD files** for all types of systems. Handy to confirm which Fletcher Insulation product is best to use in your design.

Retail shopping centre



Community shopping centre

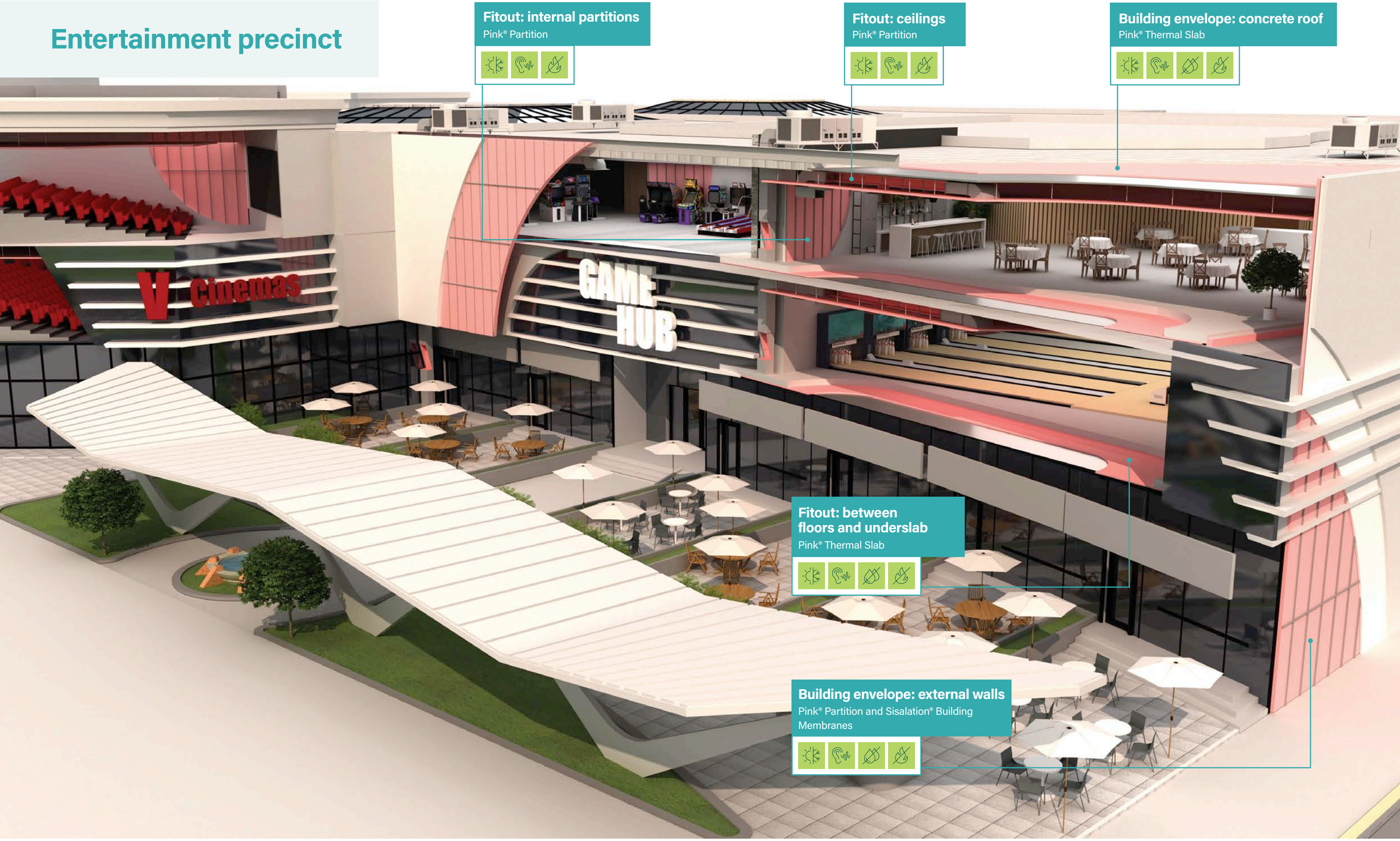
Fitout: internal partitions
Pink® Partition

Building envelope: concrete roof
Pink® Thermal Slab

Fitout: ceilings
Pink® Partition

Building envelope: external walls
Pink® Partition and Sisalation® Building Membranes

Entertainment precinct



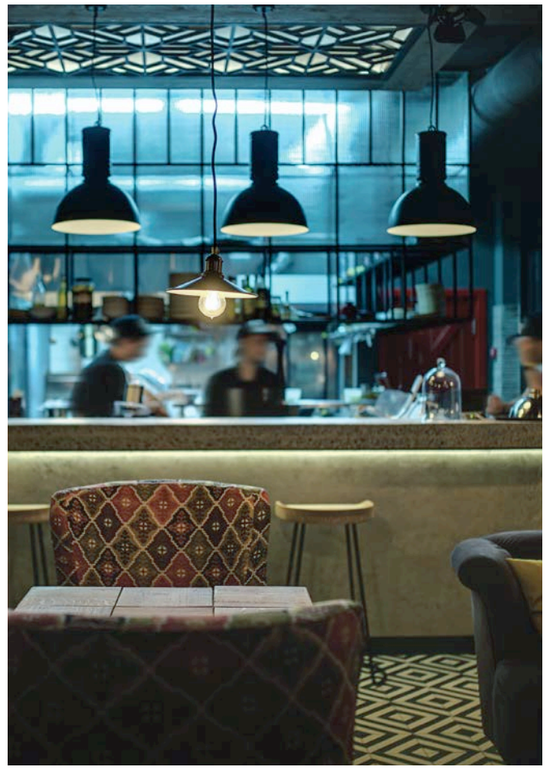
Selecting Fletcher Insulation products for retail, hospitality, & entertainment buildings

Product selection	Product description	Roofing	External walls	Internal walls	Ceilings, partitions and services	Slabs and soffits	HVAC
Roof Razor®	An insulation spacer specifically designed for metal roof construction. It sits between the roof structure and the external cladding, creating a space for insulation to recover to its full nominal thickness, reducing thermal bridging. **Roof Razor** is a spacer solution to meet the Section J requirement of the National Construction Code (NCC) where insulation must maintain its position and thickness between purlins forming a continuous thermal barrier.	✓					
Roof Safety Mesh	**Roof Safety Mesh** keeps the insulation blanket in place, provides fall protection for roofing installers and offers long-term fall protection for maintenance and repair workers. Complies with the requirements of Australian Standard AS/NZS 4389 for safety mesh and with all Australian State and Territory Codes of Practice (Safe Work on Roofs Part 1: Commercial and Industrial Buildings).	✓					
Permastop® Building Blanket	Suitable for use in both metal roof and under slab concrete soffit applications. Provides effective thermal and acoustic performance by reducing heat transfer and minimising the internal reverberation and flow of unwanted nuisance noise generated from adjacent buildings/rooms and/or the external environment. Additionally, **Permastop Building Blanket** aids in minimising the risk of condensation that can form with metal cladding.	✓				✓	
Permastop® Tropic Building Blanket	Specifically designed for use in Australia's hot and humid tropical regions to provide increased condensation protection to buildings. In these regions, it is customary to install the vapour barrier on the upper side of the building blanket which faces the roof sheet. This ensures the vapour barrier is installed on the warm side of the building to provide greater protection against the risk of condensation.	✓					
Pink® Partition	Designed for use in commercial metal framed partitions, wall systems and ceilings, **Pink Partition** insulation delivers exceptional thermal and acoustic performance, contributing to the effective construction of comfortable, energy efficient commercial buildings. It is typically used in partition walls of low and high rise buildings and commercial fit-outs such as retail and hospitality where acoustic control is essential. Pink Partition may also be used as a ceiling overlay for enhanced thermal and acoustic performance. The range encompasses multiple densities, thicknesses and dimensions to suit commercial steel framed studs and to satisfy a broad spectrum of building requirements. Specification and installation of Australian made Pink Partition insulation enables designers and builders to satisfy National Construction Code (NCC) requirements pertaining to Energy Efficiency, Sound Insulation Provisions and Fire Resistance Performance.		✓	✓	✓		
Rockwool Safe 'n' Silent Pro	Suitable for use in both metal stud partition and ceiling applications in hospitals, cinemas, schools, offices and multi residential buildings where a very high level of acoustic performance is required. Made of volcanic stone, a safe and sustainable material that continues to perform throughout the lifetime of the building. It is designed and manufactured to achieve excellent acoustic insulation performance in all types of plasterboard partition walls.		✓	✓	✓		
Pink® SonoMatt Blanket®	Suitable for applications such as partitions, screens and baffles. The black tissue facing makes it ideal for installation behind perforated linings to improve the overall acoustic properties of the internal lining. In addition to providing exceptional acoustic performance, **Pink SonoMatt Blanket** provides the added benefit of thermal insulation and increases the overall Total R-value of a building envelope, thus improving the energy efficiency of a building. This allows architects and specifiers to satisfy both thermal and acoustic design requirements with the specification and installation of a single product.				✓		
Pink® Thermal Slab	Suitable for use in commercial under slab soffit applications where thermal and acoustic properties are pivotal in controlling noise levels and temperature fluctuations of concrete roofs, floors and walls. **Pink Thermal Slab** provides excellent fire performance for ceiling lining applications achieving a AS 5637.1 Group 1 NCC fire classification, and delivers excellent thermal performance, which in turn improves the energy efficiency of a building. It also provides the added benefit of exceptional acoustic absorption, which allows architects, specifiers and builders to satisfy both thermal and acoustic design requirements through the specification and installation of a single product.					✓	

Selecting Fletcher Insulation products for retail, hospitality, & entertainment buildings

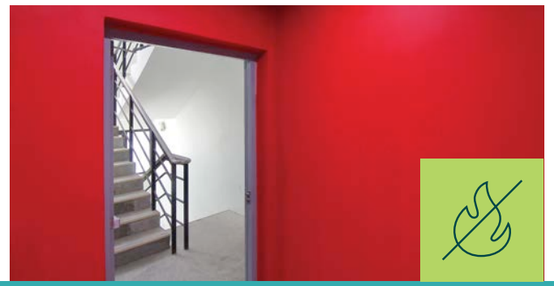
Product selection	Product description	Roofing	External walls	Internal walls	Ceilings, partitions and services	Slabs and soffits	HVAC
FI32 Semi-Rigid	The medium density specification of FI32 boards and blanket (32kg) provides excellent thermal properties and NRC acoustic values making it suitable for internal and external walls, and roofing systems where a high degree of acoustic performance is required. Available in both roll or board form to allow for greater design flexibility in commercial building applications including HVAC ducting applications. Also suitable for insulating storage tanks, process vessels, appliance cabinets, electrostatic precipitators, plant rooms and for use in the manufacture of acoustic baffles.		✓	✓		✓	✓
FI48 Rigid Board	The higher density specification of FI48 boards (48kg) provides greater thermal properties and NRC acoustic values making it suitable for internal and external walls, and roofing systems where the highest degree of acoustic performance is required for the building's design. Also suitable for HVAC ducting applications, insulating storage tanks, process vessels, appliance cabinets, plant rooms and for use in the manufacture of acoustic baffles.		✓	✓			✓
Sisalation® Foam Cell Multipurpose	Designed for use in wall and roof applications, Sisalation Foam Cell Multipurpose is an extra heavy duty 3-in-1 multipurpose sarking solution: insulation + thermal break + vapour barrier with a Group 2 fire hazard property rating. Ideal for use in NCC Building Classifications 2 to 9, it can reduce up to 95% of the sun's radiant heat, minimises the risk of condensation and acts as an effective water and vapour barrier when installed according to AS/NZS 4200.2.	✓	✓				
Sisalation® Metal Roof MD (433) and HD (453)	Suitable for use as water and vapour barrier sarking solutions in commercial and residential metal roof and wall applications, where the metal roof span does not exceed 900mm unsupported or is 1200mm or less supported. Designed to provide an effective approach to managing condensation in the roof space by creating a vapour barrier and assist in minimising draughts, enabling bulk insulation to perform more effectively. Additionally, they provide an effective secondary skin against moisture, vapour, wind, heat and dust penetration.	✓	✓				
Sisalation® Vapawrap™ Vapour Permeable Metal Roof	Suitable for use as a vapour permeable roof sarking solution in commercial and residential metal roof applications in Australia's colder climate zones, where the metal roof span does not exceed 900mm unsupported or is 1200mm or less supported. Provides an effective approach to managing condensation in the roof space by allowing the controlled escape of moisture from within the building. It also restricts the ingress of liquid water and dust from the outside environment and assists in minimising draughts, enabling bulk insulation to perform more effectively.	✓	✓				
Sisalation® Vapawrap™ Vapour Permeable Residential Wall Wrap	Suitable for use as a vapour permeable wall wrap solution in low rise commercial and residential applications in Australia's colder climate zones. Designed for walls and gable applications in brick veneer and behind fibre cement cladding. Provides an effective approach to managing condensation in walls by allowing for moisture vapour inside the structure to escape, and assists in minimising draughts, enabling bulk insulation to perform more effectively.		✓				
Sisalation® Tuff Wrap™ Wall Wrap (497)	Suitable for use as a water and vapour barrier wall wrap solution in commercial and residential brick veneer wall applications. Designed to act as a barrier that helps prevent water vapour from entering the building, as well as restricting the ingress of liquid water and dust from the outside environment, and assisting in minimising draughts for more effective bulk insulation performance.		✓				
Quadzero Loaded Vinyl Barrier	A foil faced flexible acoustic barrier highly suitable for inside cavities or over lightweight wall, ceiling and floor constructions. Ideal for auditorium theatres, partitions and meeting rooms.				✓		✓

For information on HVAC products, please contact Fletcher Insulation.



Compliant building performance

Following extensive research and product testing, you can rest assured that all our products and solutions are compliant with the latest standards and building code requirements for retail, hospitality, and leisure buildings in Australia.



Fire

Fire safety is paramount in building design. Minimising fire hazards and preventing fire spread are crucial factors to consider when designing projects in the retail, hospitality, and entertainment sectors, especially given the potential risks associated with evacuating occupants during a fire emergency.

Our specialists will advise you on passive fire prevention requirements for roofs, external wall construction, internal wall systems and HVAC services, including:

- **AS 1530.1** Combustibility **NCC 2022 Vol 1** C2D10
- **AS 1530.2** Flammability of materials **NCC 2022 Vol 1** C2D10, C2D11 & Specification 7
- **AS/NZS 1530.3** Fire Hazard Properties **NCC 2022 Vol 1** C2D11 & Specification 7
- **AS 5637.1** Fire hazard properties (Group No) for wall and ceiling lining materials **NCC 2022 Vol 1** C2D11 & Specification 7
- **AS 3959** Bushfire Construction up to BAL–FZ

Our products and solutions are compliant to the above relevant standards and safe for use in external cladding and internal partition applications, offering peace of mind and permitting architects to express design freedom in selecting cladding and partition materials.

Thermal performance

The significance of thermal comfort in enhancing the wellbeing of occupants is widely acknowledged, especially in retail, hospitality, and entertainment settings. Considering the diverse climate zones in Australia, we ensure your design remains effective, whether it's dealing with extreme heat, cold, or anything in between.

Our expert team provide guidance on meeting thermal compliance standards for NCC appropriate for mixed use buildings (in this case Class 5 (Offices), Class 6 (Retail), Class 7a (car parks) Class 9b (social/theatrical)), along with upgrade recommendations and general installation tips, all aimed at promoting healthier, more sustainable outcomes.

Our Bulk Insulation products comply with:

- **AS/NZS 4859.1** Materials for the thermal insulation of buildings
- **AS 3999** Thermal Insulation of dwellings—Bulk insulation—Installation requirements
- **AS 4254** Part 1 and Part 2 Ductwork for air-handling systems in buildings
- **AS 4508** Thermal resistance of insulation for ductwork used in building air-conditioning
- **NCC 2022 Vol 1** Part J4D2 - J4D4, J4D6–J4D7 and J6D6

Building membranes/wraps specification and installation compliance with:

- **AS/NZS 4200.1** Pliable building membranes and underlays—materials
- **AS 4200.2** Pliable building membranes and underlays—Installation requirements
- **NCC 2022 Vol 1** F3D3

Acoustics

The design of Fletcher Insulation solutions is based on the principle that comfortable acoustic environments enhance the health and wellbeing of everyone in our community.

Our products assist in reducing airborne sound through ductwork, and wall and floor construction, in accordance with:

- **AS/NZS ISO717.1** Acoustics—Rating of sound insulation in buildings and of building elements
- **AS/ISO 11654** Acoustics—Rating of sound absorption—Materials and systems
- Project specific high-performance acoustics

Our high density acoustic insulation helps target broad spectrum frequency bands for all round acoustic attenuation in:

- Specialised plant and server rooms
- Cinema and performing arts theatres
- HVAC ductwork

Condensation and moisture management

Specifying the right material to suit vastly contrasting climates and a myriad of construction systems can be a challenge.

We help you identify the systems that work best in different climates to avoid interstitial condensation. Simply leave the worry and specification details to us.

We can assist in compliance with:

- **AS/NZS 4200.1** Pliable building membranes and underlays—materials
- **AS 4200.2** Pliable building membranes and underlays—Installation requirements
- Moisture control membranes tested to **ASTM-E96** (Vapour control) and compliant with **AS 4201.4** (Water control)
- **NCC 2022 Vol 1** Part F8D3
- Project specific humidity control

Our membranes and insulation systems can be tailored for vapour permeable or barrier construction, with nominated air control layers and air-tight tapes, so you don't have to worry about matching project specific climatic and/or humidity control requirements.

Compliance and design assistance

Fletcher Insulation is an active member of the Green Building Council of Australia (GBCA), exceeding 10 years of recognition for our commitment to providing energy efficient insulation and acoustic solutions to the residential, commercial and HVAC markets.

As a long-term member of the GBCA, we are upholding our commitment to providing products for a sustainable built environment. As a GBCA member it enables us to contribute our technical and commercial expertise to the development of new Green Star rating tools and obtain access to all Green Star information. This information includes project directories, technical guidelines to support and/or assist our customers with Green Star project submissions and example submissions. The benefit to architects and specifiers, is that they can meet and raise the Green Star rating of their building projects by incorporating our range of Fletcher Insulation products.

WELL is the leading tool for advancing health and well-being in buildings globally. Fletcher Insulation can provide you with advice and solutions to help you deliver improved results in the areas of air quality, thermal comfort and sound.

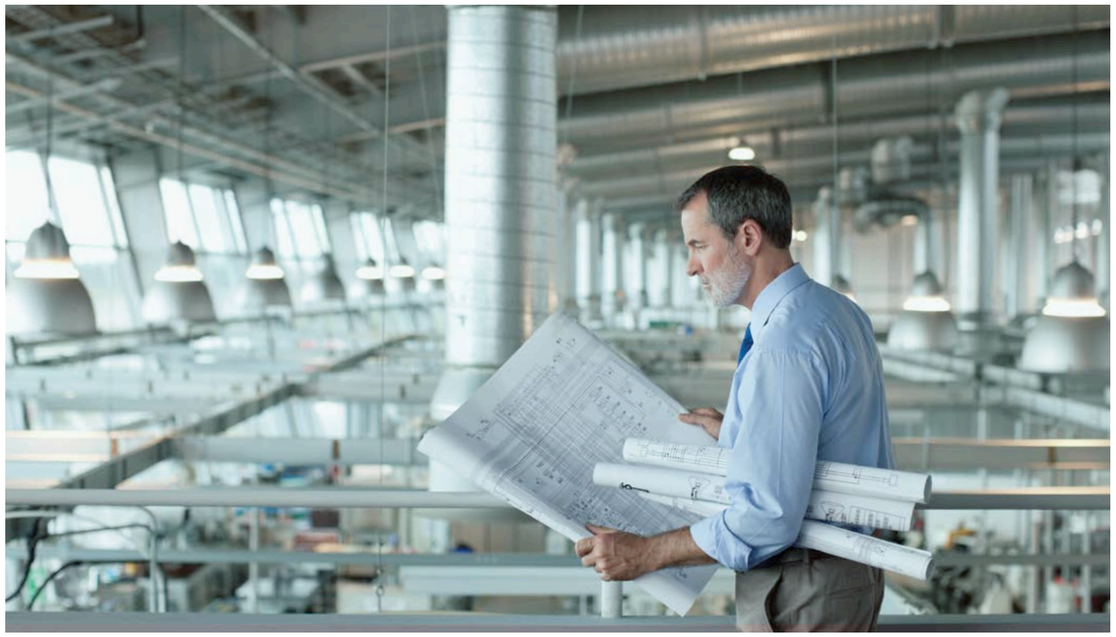
CodeMark Certificate of Conformity 30006

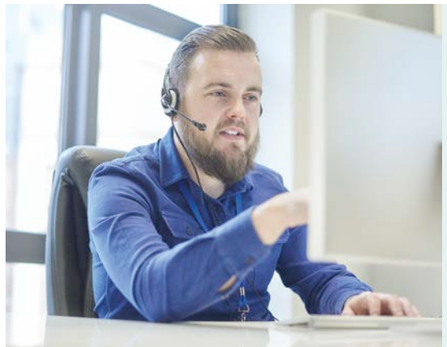
Fletcher Insulation has a comprehensive range of glasswool products that are CodeMark certified for thermal performance. This product certification is designed to provide confidence and certainty to regulatory authorities and the market through the issue of a Certificate of Conformity. It is one of several options available for meeting the 'evidence of suitability' requirements of the National Construction Code (NCC). Importantly, our CodeMark 30006 certification:

- proves the listed products meet the evidence of suitability requirements of the NCC
- ensure they are capable of performing as intended
- streamline the building consent and inspection process
- Further, they are listed on the Joint Accreditation System of Australia and New Zealand (JAS-ANZ) register.

FletcherSpec Pro® is a Fletcher Insulation app developed to overcome many traditional issues architects and builders face when specifying insulation. The app provides a near complete support structure, guiding users through the entire insulation specification process.

FletcherSpec Pro® delivers centralisation of the multitude of tasks associated with typical System R-value calculations including but not limited to; determining the relevant climate zone, referencing applicable energy efficiency requirements, considering solar absorption values of roof cladding and selecting the correct insulation products for the application. This drastically minimises the need to manually cross reference inconsistent or out-dated handbooks, technical data sheets and so on. Instead, users simply answer a series of targeted questions which the app uses to determine relevant energy efficiency requirements as outlined in the National Construction Code Deemed to Satisfy provisions. The app then progresses to calculate the Total R-value of the design based on the inputs entered by the user.





Technical support

Fletcher Insulation's Technical Service is an invaluable resource for architects and specifiers. Our insulation experts understand what's needed to satisfy a diverse range of building applications, including the complex requirements of the education and health sectors. Providing the right advice when you need it, our technical service team has quality solutions to help solve your building insulation challenges.

Contact Fletcher Insulation on 1300 654 444 or email technical@insulation.com.au

Technical Data Sheets and Installation Guidelines

Visit **insulation.com.au** to discover the excellent array of technical information available to download, whether you need to get into the product details yourself, or reassure the project team that our products are compliant, and safe and easy to install.

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Addendum:

Commercial buildings acoustic requirements

Extract from Association of Australasian Acoustical Consultants Guideline for Commercial Buildings V2.0.

Table 1: Acceptable Dw values depending on a room's noise level and the tolerance in the adjacent space

Noise tolerance in receiving room	Source room activity noise			
	Low	Average	High	Very high
High	30	35	40	45
Medium	35	40	45	50
Low	40	45	50	55
Very low	45	50	55	60

For guidance on expected noise source levels and tolerance for various room occupancies refer to Table 2 below.

Table 2: Room noise source levels and tolerance

Type of occupancy/activity	Source activity level	Noise tolerance
Board and conference rooms	High	Very low
Cafeterias	Very high	High
Call centres	Average–high	Low–medium
Computer (server) rooms	High	Medium–high
Corridors and lobbies	Average	High
Design offices	Average	Low
Drafting offices	Average	Low
General office areas	Average	Medium
Private offices	Low	Low
Public spaces	Average	High
Reception areas	Average	Medium
Rest rooms and tea rooms	High	High
Toilets	Average	High
Undercover car parks	Very high	High

Table 3: Performance requirements between separate tenancies where space use is unknown

Weighted sound reduction index (Dw)				
Poor	Average	Good	Very Good	Excellent
35	40	45	50	55

Table 3 provides acoustic quality as it relates to the quality of the development and where the use of the spaces either side of a common wall is unknown.

Table 4: Performance requirements within the same tenancy where space use is yet to be defined

Weighted sound reduction index (Dw)				
Poor	Average	Good	Very Good	Excellent
30	35	40	45	50

Table 4 above provides acoustic quality as it relates to the quality of the development and where the use of the spaces on each side of the wall is yet to be defined, otherwise Table 1 can be used.

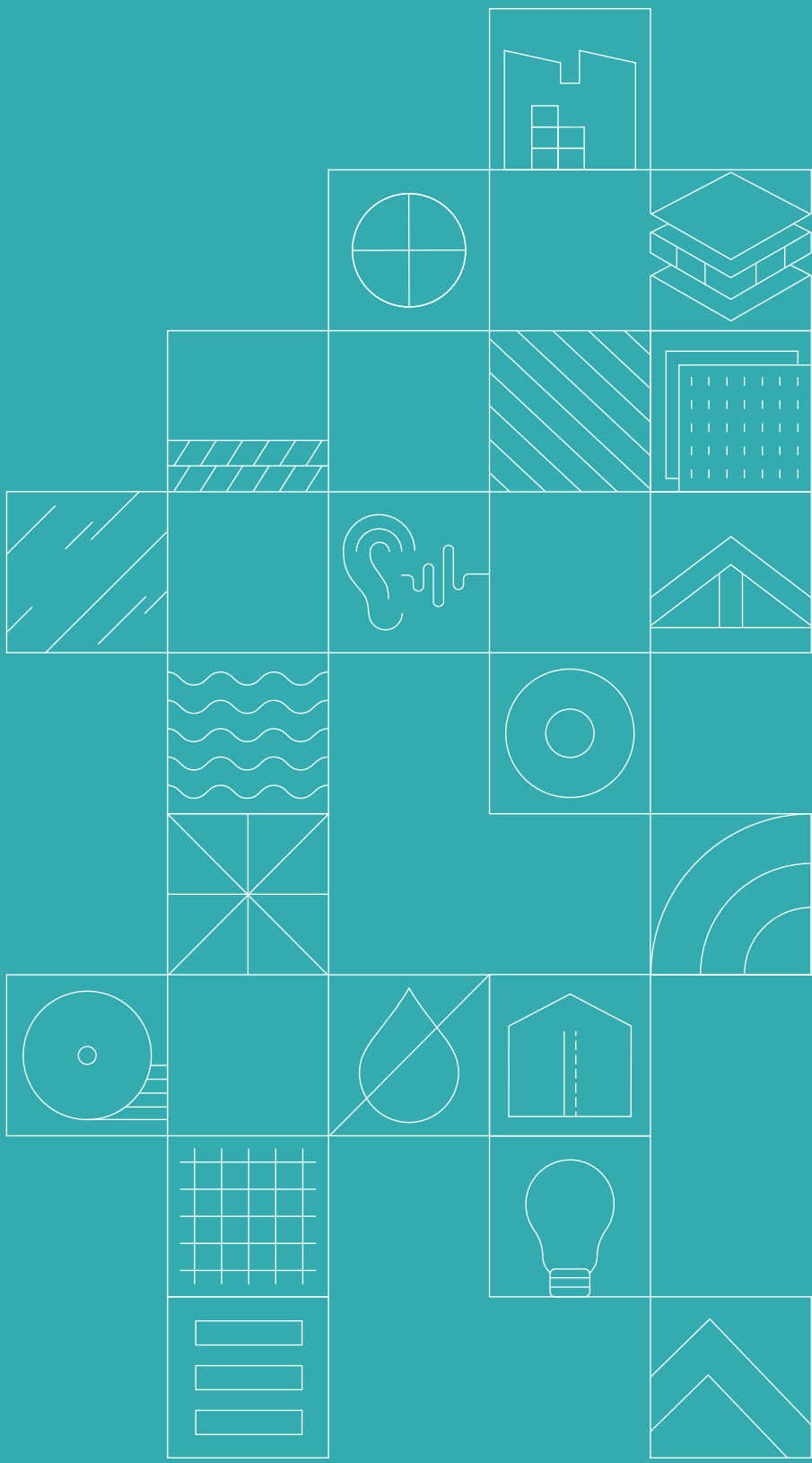
For office areas where walls do not extend full height, the ceiling selected will also become critical.

Fletcher Insulation

Building Better, Together

For more information:

phone **1300 654 444**
email **info@insulation.com.au**
visit **insulation.com.au**



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