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IMPACT

AngelStep® 484P

acoustic underlay for timber joists

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AngelStep® 484P acoustic underlay is specifically designed for properties which use a timber substrate, offering exceptional reduction of both airborne and impact noise.

AngelStep® 484P construction combines a highly effective support and cushion. It provides maximum performance for minimum thickness combining an impact and vibration damping and sound absorber with two decoupled noise barriers.

The resilient polyester core layer absorbs impact energy and residual airborne noise from above and below, transforming wave vibrations into heat energy.

decoupled flexible floating' top and bottom noise barriers greatly reduces airborne sound waves - noise above or below the floor - and complies with the Building Code of Australia in respect to separating floors between adjoining dwellings. When AngelStep® is installed, it delivers optimum performance and comfort for both resident and neighbours alike

Compared to products made by others, Acoustica's AngelStep® range of underlays have been shown in independent comparison tests to offer a more effective acoustic treatment, a thinner solution, that is also cost effective.

The unrivalled performance of AngelStep® 484P was designed for use in apartments and townhouses, upmarket housing and professional office and consulting suites where discerning buyers expect performance beyond that mandated by the minimum requirements of the BCA.

AngelStep® 484P has been developed to suit construction over a timber substrate.

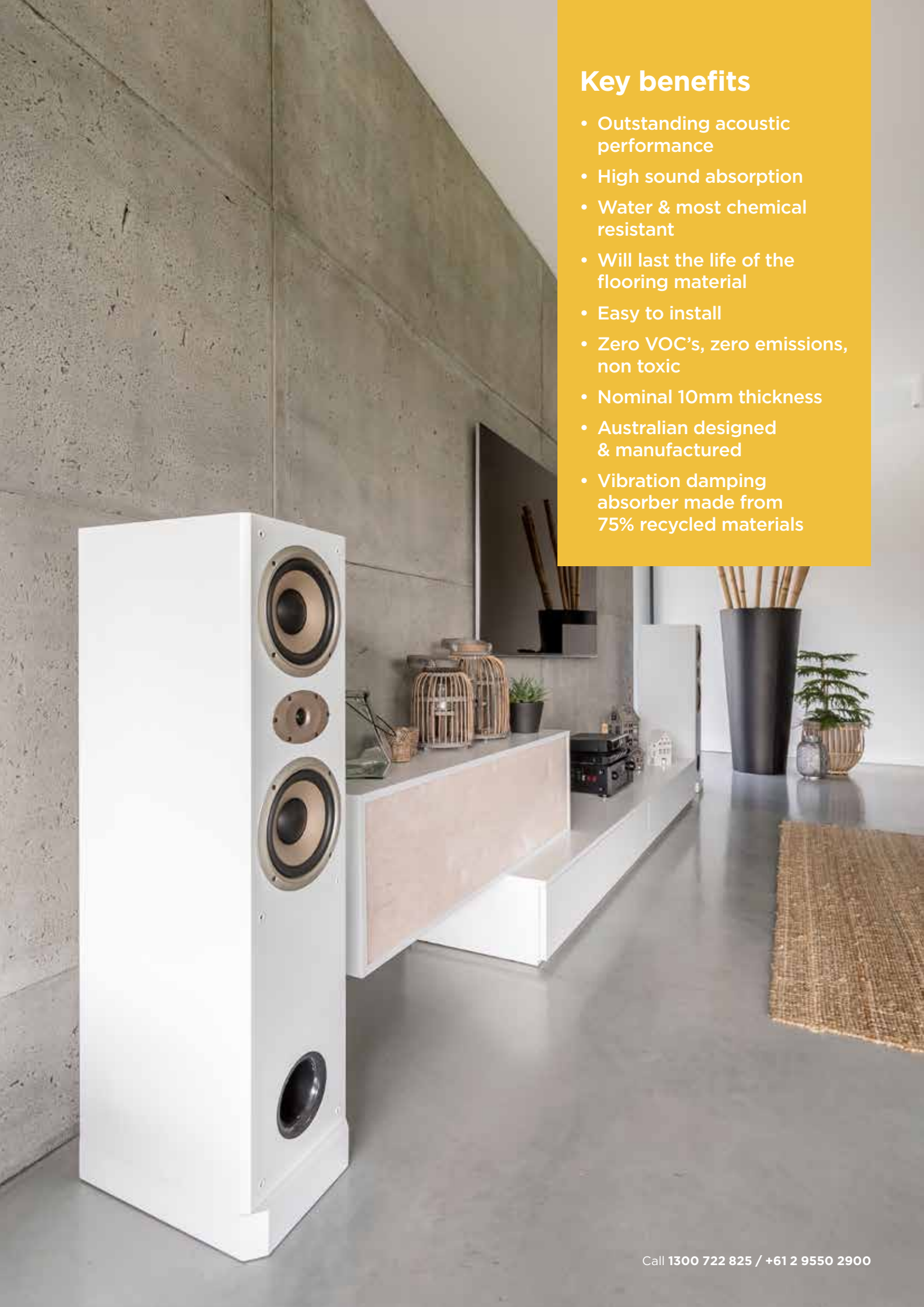
It is 10mm thick and is supplied in tiles 1150x1150mm. AngelStep® 484P combines Sound Transmission Loss, or airborne noise, with impact vibration reduction.

AngelStep® 484P achieves this because of its unique polymer construction. AngelStep® 484P will not 'collapse' under the weight of heavy furniture, castors and appliances.

Independent tests by Wilkinson Murray #09053/A with a new 20mm tongue & groove floor installed over a timber structure achieved and overall sound insulation improvement of 19dB or LnT,w 56

The untreated floor system had a rating of L'nT,w 75.

Each building is different, - particularly timber framed structures - so to achieve a target star rating we recommend an onsite tapping test to tune the solution to suit your project.



Key benefits

- Outstanding acoustic performance
- High sound absorption
- Water & most chemical resistant
- Will last the life of the flooring material
- Easy to install
- Zero VOC's, zero emissions, non toxic
- Nominal 10mm thickness
- Australian designed & manufactured
- Vibration damping absorber made from 75% recycled materials

Acoustic tapping test

Acoustica's product range of noise control solutions for flooring systems has been repeatedly independently tested to consistently achieve five and six stars in the Association of Australian Acoustical Consultants (AAAC) star rating system. However, results will vary depending on the construction, substrate and surface materials of each project.

Acoustica can provide site specific testing and certification for each project site, prepared in accordance with the International Standard ISO 16283-1:2014 Acoustics -- Field measurement of sound insulation in buildings and of building elements -- Part 1: Airborne sound insulation (refer ISO 140-7:1998).

There is a charge for this service.

Technical

The BCA provides minimum construction standards for various building classes including acoustic privacy.

The BCA requirement is a weighted standardised impact sound pressure level with spectrum adaptation term Ci, of less than or equal to 62 Lnt,w+Ci.

However, the reality is that this is in most cases unacceptable to occupants andcan result in the need for costly reparation works.

In response the Association of Australian Acoustical Consultants (AAAC) has developed the star rating system to rank the acoustical quality of apartments and provide guidance in the design and construction process.

Tapping machine

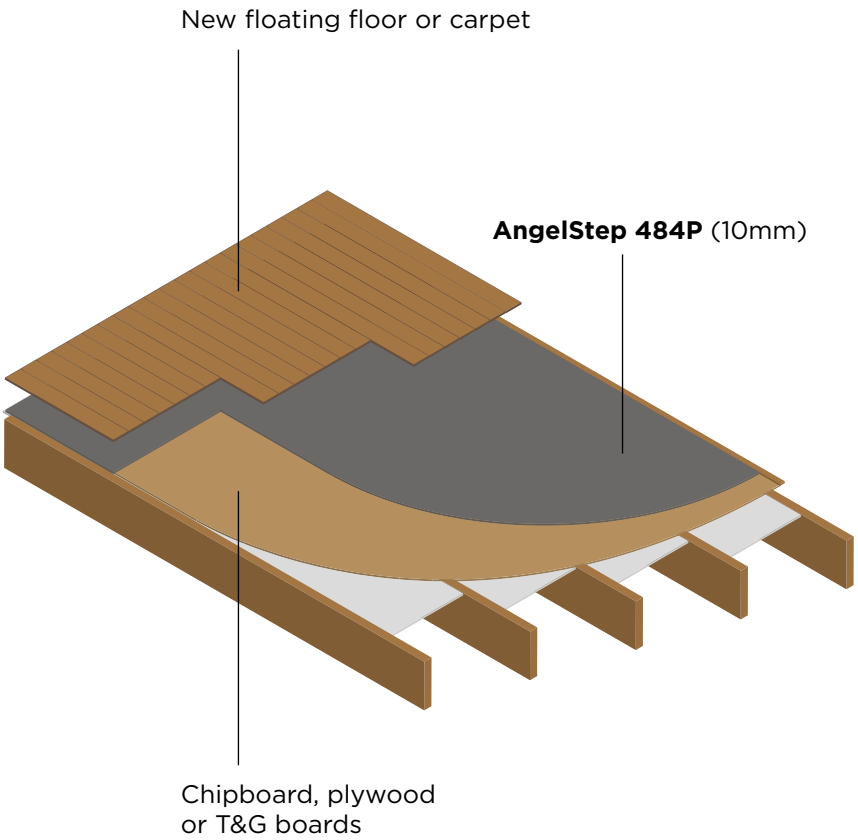
Custom & specialist solutions

Acoustica are specialists in refining solutions to tune your project to achieve an optimal outcome.

You are most welcome to contact us for information and advice.

Features & Benefits

- Outstanding impact and sound deadening
- Resistance to moisture absorption & rot
- Suitable for underfloor heating
- Environment friendly
- Assists in at reducing reverberated sound in the room
- Will last the life of any floors



Application

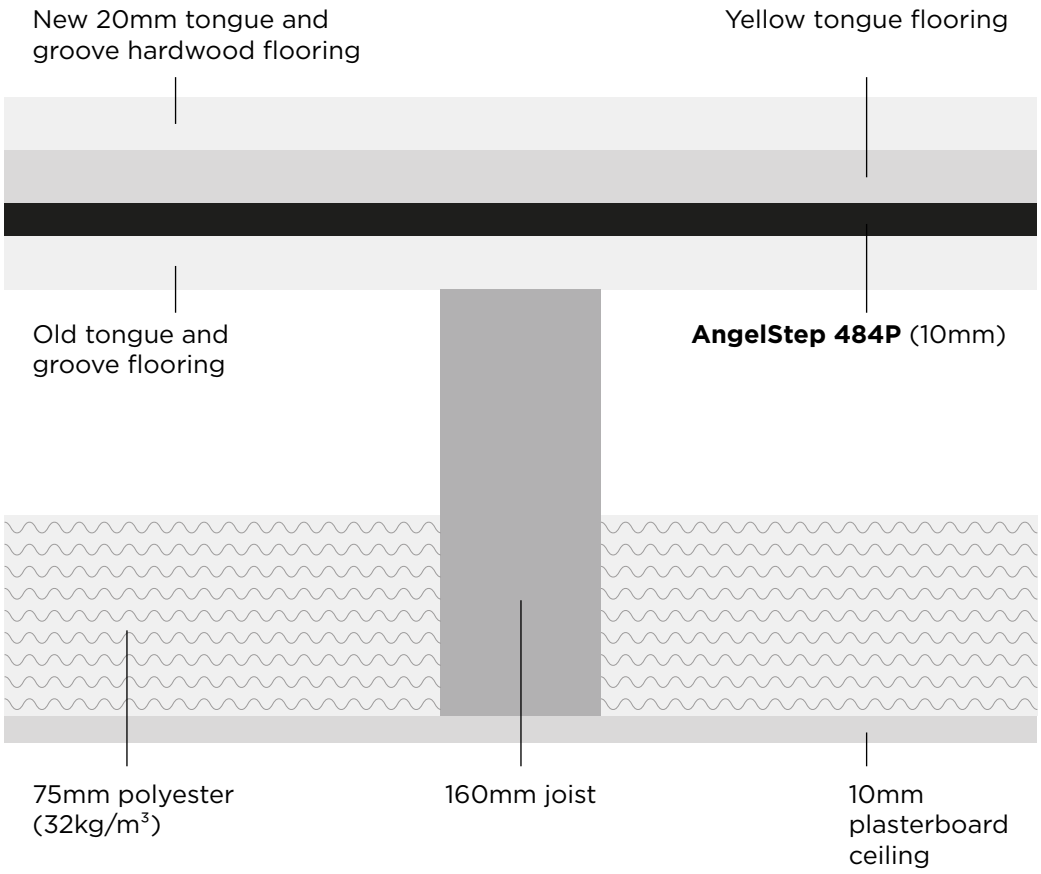
AngelStep® 484P was design to treat light-weight timber floor system (timber joists with plasterboard & chipboards)

The combination of two noise barriers & resilient sound absorbent core tests both impact & airborne noise.

This material is suitable and can be installed under* solid timber floor, engineered timber floor, ceramic tiles, vinyl, carpet or carpet tiles.

	Impact Isolation of floors (Lnt'w)	AAAC Description
6 star	40	Just audible or not audible
5 star	45	Just audible
4 star	50	Audible
3 star	55	Clearly audible
2 star	65	Clearly audible
BCA	62	Clearly audible

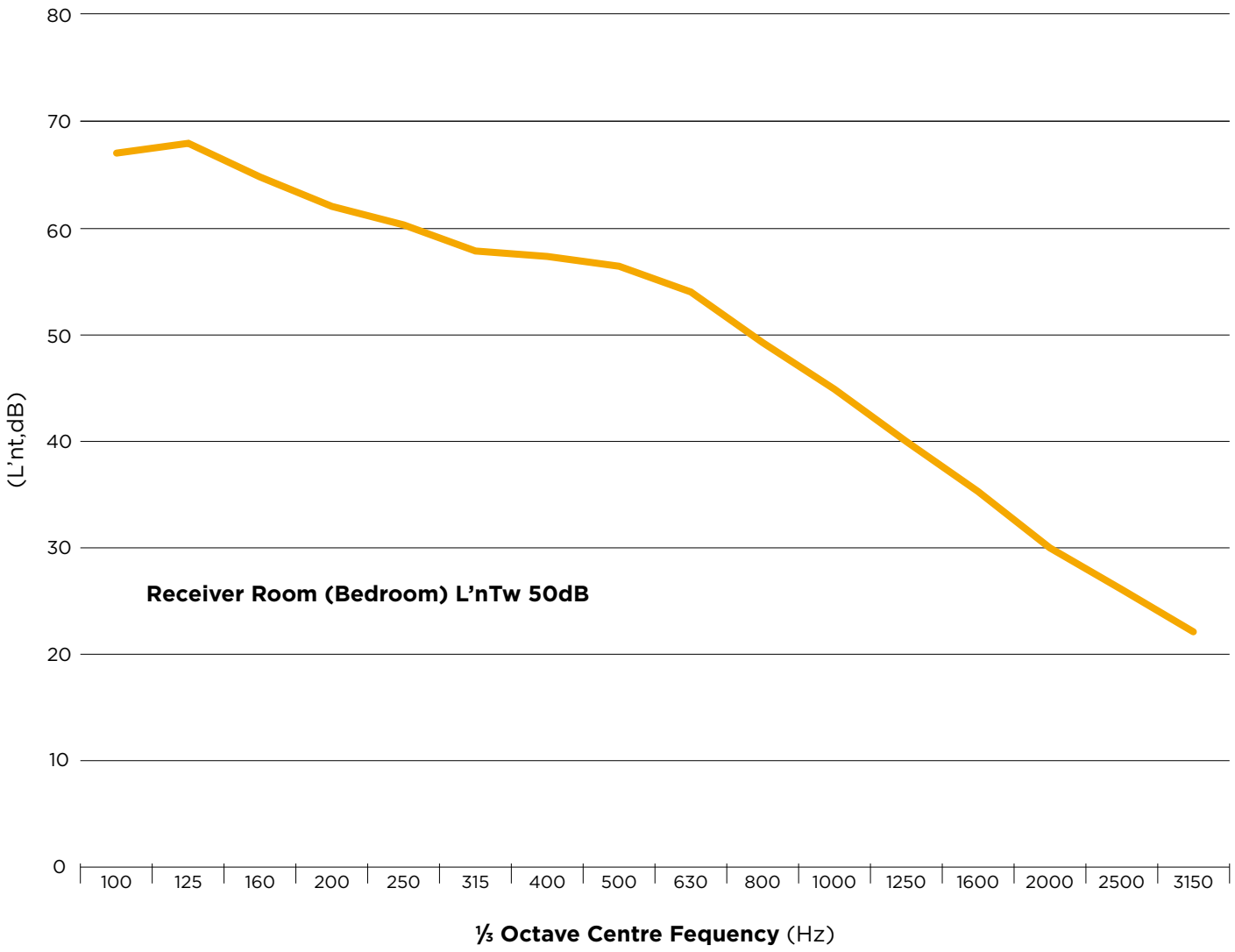
Installed Floor System



*For some floor finishes, an intermediate layer (eg light concrete screed, tong & groove plywood or chipboard, FC sheeting) will have to be installed.

Our engineers will advise how to perform the installation.

Typical Acoustic Test Result



Comments

Untreated timber joist flooring systems that separate individual tenancies exhibit very poor impact isolation performance.

It is estimated that for the untreated floor system the L'nT,w would be in the region of 75 with a correction of nominally 0, resulting in L'nT,w + CI.of 75.

This level of performance would not comply with the current Building Code of Australia requirements of L'nT,w + CI of 62.

The installation of the AngelStep® 484P underlay has resulted in a significant improvement in impact isolation between tenancies (an improvement of ≈ 17 to 19 dBA).

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