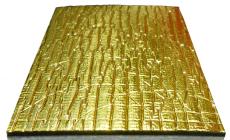


Apartment dwellers have long complained about impact noise intrusion due to footsteps and clatter of utensils and articles dropped on to the floor in apartments overhead. In addition to this impact noise, many occupants have also endured excessive airborne noise transmitted from powerful TV and audio systems.



The AngelStep® range is an acoustic underlay for the treatment of impact and airborne noise transfer.

AngelStep® construction combines a highly effective support and cushion. It provides maximum performance for minimum thickness combining an impact and vibration damping and sound absorber.

The resilient polyester core layer absorbs impact energy and residual airborne noise from above and below, transforming wave vibrations into heat energy. The 'decoupled flexible floating' top noise barrier 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® GOLD 8 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.

The performance of AngelStep® GOLD 8 is due to its unique and patented construction – a laminate of double needle punched high density sound absorbent polyester and a resilient 'cross linked' microcellular foam. It is nominally 8mm thin & is supplied in tiles 1150x1150mm (1.3225m2)

Unlike competitive underlays AngelStep® GOLD 8 has been engineered as a universal underlay to deliver optimum acoustic performance according to the flooring type. Select installation option – of polyester side facing up/down or foil moisture barrier side facing up/down depending on end result required.

The product has been independently tested to achieve Lnt,w of 40 - equivalent to AAAC rating 6 stars:

- Independently tested by West and Associates Pty Limited document 14201 28/10/2014 = GOLD 8 + 15mm plywood + 15mm timber floor on a concrete slab with vermiculite result Lnt,w 36 = AAAC 6 stars
- Independently tested by Palmer Acoustics Australia Pty Limited document 3770 v.0 28/11/2014 = GOLD 8 + 14mm thick timber on a concrete slab result Lnt,w 40 = AAAC 6 stars
- Independently tested by Wilkinson Murray Pty Limited document 16195/270516BC 27/05/2016 = GOLD 8 + ply + 14mm engineered timber floor on a concrete slab with no ceiling cavity result Lnt,w 38 = AAAC 6 stars
- Independently tested by Vipac Engineers & Scientists Ltd 07/07/2016 to achieve AAAC 6 stars Lntw 35 in combination with AngelStep 630 (test conditions 15mm engineered oak floor on 2 layers of AngelStep GOLD 8 with AngelStep 630 between over concrete slab, 80mm cavity & 10mm plasterboard (report 20E-16-0089-TPR-456023-0)
- Independently tested by Vipac Engineers & Scientists Ltd 06/10/2016 to achieve AAAC 6 stars Lntw 40 with Novocore vinyl flooring over 200mm concrete slab with bare concrete ceiling (report 20E-16-0192-ADM-456564-0)

#### Key benefits

- · outstanding acoustic performance
- high sound absorption
- · high impact insulations & strength
- · water & most chemical resistant
- · will last the life of the flooring material
- · easy to install
- · no VOCs, no smell
- · approx. 8mm thin
- · Australian designed & manufactured
- · Global Green Tag Certified

#### GOLD foil up

#### GOLD foil down

solid timber engineered timber bamboo veneer carpet

parquetry ceramic tile vinyl cork

Safe indoor air quality - does not contain any added chemicals such as formaldehyde based binders or fibres that can be breathed into your lungs.

Tested by Cetec Pty Ltd report CV080408 for chemical emission and is classified as low VOC. VOC concentration 0.01mg/m3

## AngelStep® GOLD8

### acoustic underlay

#### 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 Acoustic 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 and can result in the need for costly reparation works.

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

#### 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.

#### **Applications**

AngelStep® Gold 8 is a universal floor acoustic underlay that can be installed under\*\* solid timber floor, engineered timber floor, ceramic tiles, vinyl, carpet or carpet tiles....

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

Our engineers will advise how to perform the installation.

#### Features & Benefits

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

	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



acoustica the quiet Australian





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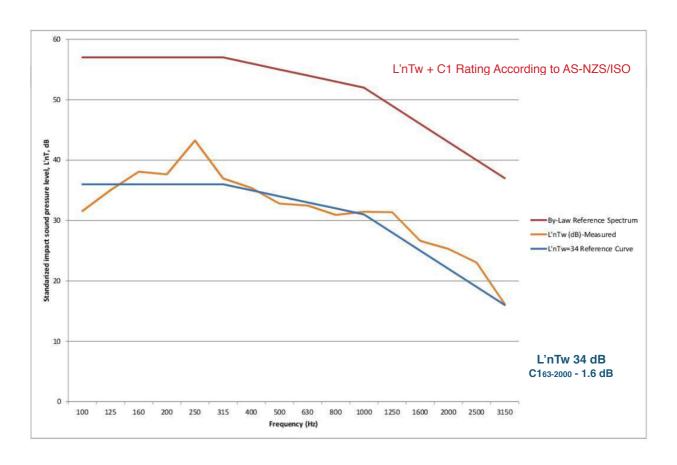
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# AngelStep® GOLD8 acoustic underlay

#### Typical Acoustic Test Result on a Concrete Slab

AngelStep® Gold 8 under 6mm fibre cement sheet under 10mm stone tile, 220 concrete slab, suspended plasterboard ceiling



Measurements and assessments of sound transmission through floor/ceiling systems are carried out in accordance with the following standards:

- AS ISO 717.2-2004: Acoustics Rating of sound insulation in building elements.
- AS/NZS ISO 140.7-2006: Acoustics Rating of sound insulation in buildings and of building elements.



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