

How to Choose a Ceiling Lining for Indoor Pool & Spa Environments



Introduction

The rising popularity of high-density, inner city housing is transforming the building and design industry. Approvals for multi-unit buildings in Australia jumped by 17.5 per cent in January 2015¹. Approvals for this type of dwelling, which includes flats, units and townhouses increased a massive 59 per cent year on year².

One of the biggest trends among these new developments is the increase in high-end living. With demand for high-end apartments on the rise, there is increased interest in best practice design and construction for areas such as gyms, pool areas and spas; an expected feature of these developments.

The design of these areas creates unique challenges for designer and builder. For high humidity areas such as pools and spas, addressing issues brought about through excess moisture is crucial. In addition to this, there is also the requirement for high thermal and acoustic performance.

Supawood developed SupaExpanse taut ceilings for indoor environments including swimming pools, spas, saunas, change rooms and bathrooms. SupaExpanse addresses the design requirements for acoustic performance, moisture resistance and thermal performance.



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Acoustic performance

Acoustics in indoor pool areas are traditionally poor. The combination of water (one of the most efficient reflectors of noise) with wall-to-wall tiling creates a number of surfaces for sound to reverberate. When the areas contain people swimming and combine with the noise from blower fans, filtration systems and jet spas it can create an extremely uncomfortable space.

Acoustic linings are a necessity for reducing the noise in these indoor spaces.

SupaExpanse Acoustic ceiling lining provides excellent reverberation control to reduce noise and improve user experience. A SupaExpanse Acoustic ceiling can achieve a 0.65 NRC (up to 65 per cent of sound waves absorbed), and with the addition of small perforations, up to 0.95 NRC (up to 95 per cent of sound waves absorbed).

Moisture control

Maintaining a ceiling in high-moisture and humidity areas such as pools, spas and saunas has long been a challenge when traditional ceiling materials have been used. Over time, the moisture within the space causes the ceiling to crack, rot and stain. The costs of this can be significant, with the need for ongoing maintenance, or in worst case scenarios the occurrence of serious structural damage.

Moisture in pool and spa areas can also significantly reduce the thermal and acoustic performance of insulation materials. When condensation accumulates in insulation materials, even at levels as low as 1% by volume, it can significantly reduce the thermal resistance of the insulation³.

Most traditional acoustic linings provide little resistance to moisture, and becoming increasingly susceptible to these issues over time.

SupaExpanse is moisture resistant so it is not affected by humidity, mould, condensation or changeable temperature on either side of the ceiling. SupaExpanse also forms an excellent moisture/vapour barrier to provide effective and lasting protection to the structure above.

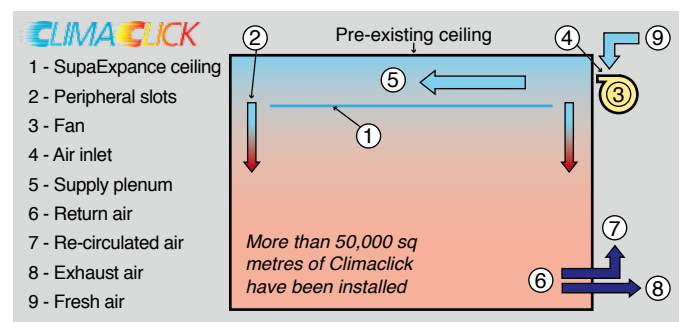
SupaExpanse can help to eliminate maintenance costs and provide peace of mind that structural integrity is retained.

Thermal performance

With improved environmental sustainability a key issue for designers, and the importance of reducing rising electricity bills for strata owners, improving thermal performance is crucial.

SupaExpanse features Climaclick technology. Climaclick transforms the entire ceiling into a surface that radiates the desired temperature without the need for duct work, helping to create a gentle and even diffusion of air without draughts.

Air is circulated through the ceiling and warms or cools as required, slowly diffusing through the room at the desired temperature, creating a perfectly even and comfortable climate throughout the entire room.



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Design flexibility

As one of the largest surface spaces of any interior, the look and design of a ceiling can easily transform a room from generic to stunning. In modern architecture, design is often compromised for adherence to standards and performance. SupaExpanse offers the flexibility to create stunning interior designs whilst still adhering to standards and performance requirements.

SupaExpanse ceilings are available in over 100 colours and 9 different finishes. SupaExpanse allows for the creation of curves and shapes, with creative mastery of lighting effects such as diffusion, depth and reflections.

SupaExpanse provides custom printing and design to create a truly stunning and unique feature, where the only restriction is your imagination.

SUPAWOOD

For over ten years Supawood has been a market leader in the development, manufacture and supply of architectural linings in Australia. With over one thousand successful projects and counting, specifying Supawood guarantees a quality result. Supawood is Australian owned and operated so they can ensure short lead times, intimate quality control, and start to finish support which not available from overseas importers.

Insight into good planning of these areas starts at the very beginning of the design process. Supawood can be there to advise every step of the way, ensuring that you can achieve an indoor pool or spa area which provides excellent thermal and acoustic performance, moisture resistance, and the flexibility to create.



REFERENCES

¹ HIA. Media Release Multi-Units Drive Dwelling Approvals to New High. March 3 2015

² <http://www.smh.com.au/business/the-economy/apartments-townhouses-continue-to-drive-australian-building-approvals-20150504-1mzb3y.html>

³ Condensation in Buildings, Australian Building Codes Board pg.13 2011

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