



SOLITEX EXTASANA ADHERO[®]

Mass Timber Moisture Protection



Reliable solutions for sealing building envelopes





Reliable, cost-effective weather protection for timber structures

Wood is one of the oldest and also most versatile building materials known to us. Demand for this natural, renewable material has been booming in recent years, and there is no end in sight for this trend. With the development of large-format wood-based panels such as cross-laminated timber (CLT), Glue Laminated Timber (GLT) and solid wood elements, timber is now a high-tech material that offers many advantages in practical applications: new builds, renovations, extensions, refurbishments, additional storeys and redensification projects can be carried out quickly and cost-effectively using timber.

Temporary weather protection of the mass timber during the construction phase is necessary to maintain quick & cost-effective installations with reduced risk of timber saturation. Once the building is complete SOLITEX EXTASANA ADHERO® forms part of the weathertight facade systems that has high drying potential. This is critical for health and longevity of the structure.





Quick, precise, higher quality

Previously, timber was mainly used on single-family and multi-family homes, but in recent years timber construction has increasingly also been employed for major projects such as office and administrative buildings, schools, kindergartens, modular buildings and the large-scale addition of storeys onto multi-storey residential buildings. Thanks to the high degree of prefabrication that is possible, construction can be carried out efficiently, economically, precisely and to the highest aesthetic requirements – which also includes visible wooden surfaces with high-standard finishes.



Keeping water away from built structures

This principle applies equally to conventional masonry and concrete structures and to timber constructions. For this reason, the Australian National Construction Code and the New Zealand Building Code requires that suitable measures are to be taken to ensure the moisture content does not change unacceptably due to adverse influences such as ground moisture, precipitation, adjacent building components or drying out. As a consequence, unacceptable swelling of timber components and the resulting changes in shape and crack formation must be prevented by means of protection measures on building sites or through the planning of construction work.



Finish quality

Optical defects such as water stains can lead to avoidable disagreements, payment penalties and, in the worst case, dissatisfied clients. As a result, weather protection is an increasingly important issue on timber construction sites.

Suitable protection measures

It is a good idea to develop a weather protection concept during the planning stage. In the case of a compact construction, protection can be provided for building components by a fixed or moving temporary roof. Alternatively, coverings or stuck-on protection can be used. Measures of this type can make more sense on more complex geometries. In such cases, it is important to work carefully and use suitable materials. Weather protection membranes should be:

- Water barrier and vapour permeable
- Full-contact self-adhesive (immediate protection against wind uplift and no seepage of water possible)
- Equipped with a very resilient, glare-free covering fleece
- Anti-slip – even in wet conditions
- Thin (a number of layers should not cause problems during the installation of pre-fabricated wall and floor/ceiling elements)
- Low-emission, particularly if they are to remain installed in the long term



The full-contact self-adhesive weather protection membrane SOLITEX EXTASANA ADHERO® meets these requirements and offers planners and installation professionals a complete system with optimally coordinated components:

- SOLID acrylate adhesive tape
- All-round joint adhesive
- Sprayable airtightness sealant
- Primers
- Grommets/gaskets
- Gully for temporary drainage
- System warranty



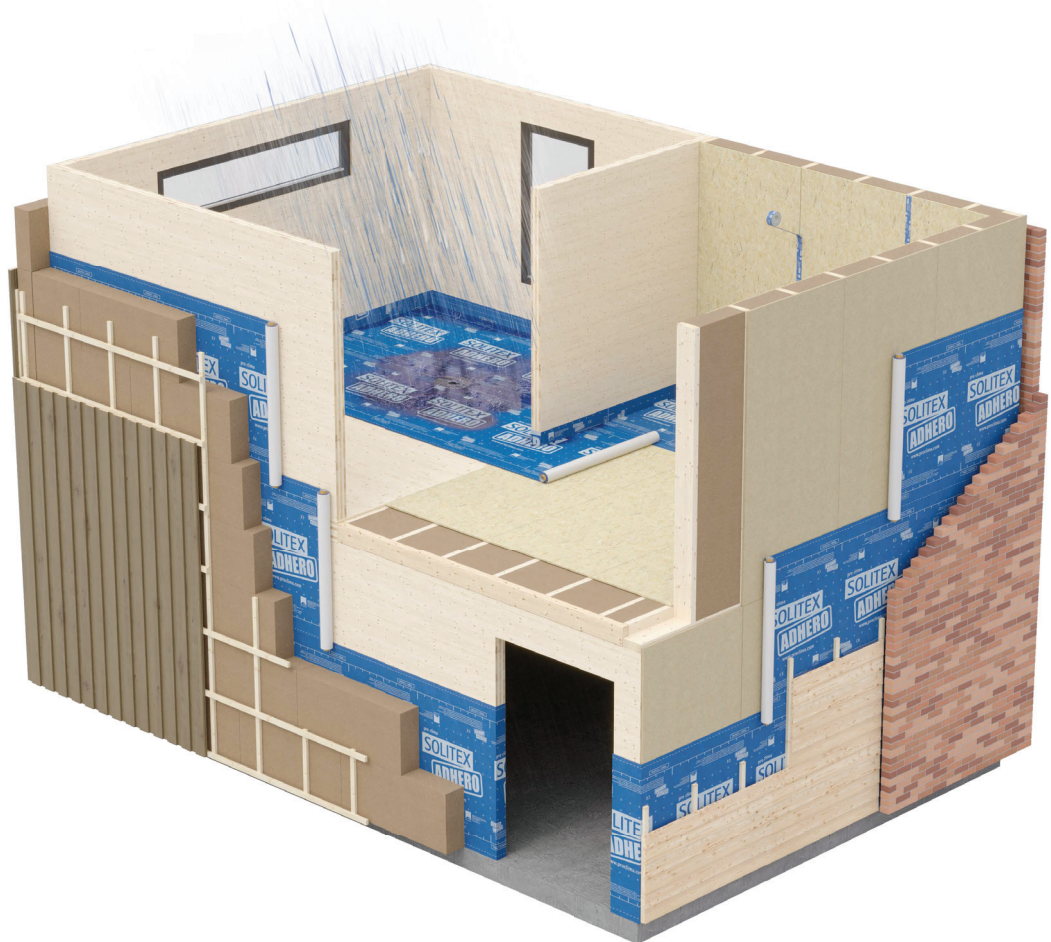
SOLITEX EXTASANA ADHERO® system

Roofs and walls: allows airtightness to be achieved on wood-based products and mineral substrates – e.g. on the exterior side of unplastered (fair-faced) masonry or concrete components with joints. It prevents the accumulation of moisture in the timber during construction to protect health and amenity according to the Australian and New Zealand Building Codes. SOLITEX EXTASANA ADHERO® provides temporary weather protection for ceilings, floors and walls during construction: thanks to its full-surface adhesion. This product provides temporary protection for intermediate ceilings and floors on multi-storey CLT (cross-laminated timber) or wooden-frame buildings during the construction process.

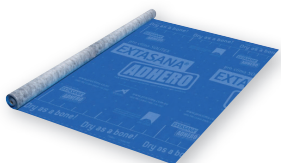
Advantages

- ☒ Protects the structure: vapour permeable and maximum protection against driving rain
- ☒ Keeps building components dry by means of a pore-free moisture-active functional membrane
- ☒ Easy and reliable installation thanks to its split release film – sticks immediately to compatible building materials and surfaces
- ☒ Maximum durability for lifelong performance with excellent heat resistance, UV stabilised fleece and non-porous TEEE functional film
- ☒ Up to 180 days of UV stability and outdoor exposure

Exposed construction protected by SOLITEX EXTASANA ADHERO®



System core components



SOLITEX EXTASANA ADHERO®
Full-contact self-adhesive, protects roofs, walls and intermediate ceilings/floors against moisture



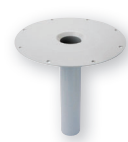
TESCON EXTORA®
Provides permanent, reliable adhesion that is airtight and rainproof – both indoors and outdoors



ORCON® CLASSIC
Creates reliable joints with rough or mineral adjacent building components



TESCON EXTOSEAL®
Provides permanent reliable adhesion and fastener sealing that is airtight and weathertight



ADHERO® Floor Drain
Facilitates simple, reliable drainage of temporary sealing during the construction period



Temporary sealing during the construction period on major timber construction sites

Timber construction elements have to be protected against moisture over long periods during construction. The self-adhesive SOLITEX EXTASANA ADHERO® can be installed quickly on all strong, dry and dust-free surfaces and have full-surface adhesion with the subsurface. As a result, it fulfills the requirements of ISO 16696-1:2019, Timber structures - Cross laminated timber: Component performance, production requirements and certification scheme.

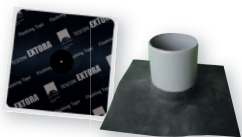
- **Full-surface adhesion:** penetrating water cannot spread out between the membrane and timber component.
- **Dry building components:** Non-porous / Monolithic vapour permeable Thermoplastic Elastomer Ether Ester (TEEE) functional membrane actively transports moisture to the outside, if required.
- **Excellent values in the hazardous substance test:** SOLITEX EXTASANA ADHERO® is ideally suited for construction projects with demanding standards with regard to indoor air quality; this is an advantage over temporary sealing membranes made of polymer bitumen.
- **Significantly thinner than bitumen sheeting:** walls can be installed directly onto covered cross-laminated timber floors without raising the height of the structure or creating measurement tolerances.
- **More cost-effective than temporary roofs:** on large building sites, these are often very expensive or else not possible due to the building geometry.
- **Safe working:** the membranes are non-slip and glare-free, even in wet conditions – there are no slipping or tripping hazards, unlike with loosely installed sheeting.

In addition:

- Protects against wetting during transportation and delivery between the off-site manufacturing facility and the construction site when SOLITEX EXTASANA ADHERO® is factory applied
- Glare-free working thanks to non-reflecting surface
- Self-sealing at nail or screw connections
- A self-contained system offers maximum protection
- Tested to AAMA 711 Section 5.2 - Water Penetration Resistance Around Fasteners.



Supplementary products for detail solutions



KAFLEX/ROFLEX
Allows for quick, reliable joints to cables and pipes



TESCON® PRIMER RP
Primes and strengthens subsurfaces in a simple, quick and permanently reliable manner

... and the insulation is perfect





Planning and installation instructions

Areas of application

The pro clima SOLITEX EXTASANA ADHERO® self-adhesive and airtight weather protection membranes can be used:

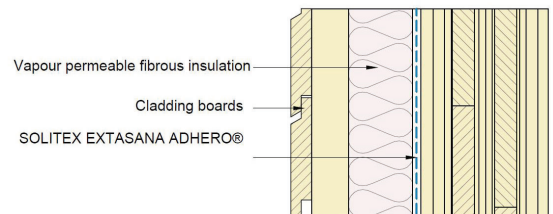
- for temporary protection of wall elements and intermediate floors/ceilings during construction on multi-storey timber-element buildings,
- to achieve airtightness on the interior and exterior of wood-based products and mineral subsurfaces,
- on the exterior side of wooden-frame walls behind ventilated pre-wall shells,
- as a nail-sealing underlay on the roof decking and suitable wood-based panels.

Use as temporary protection on timber element structures during construction

SOLITEX EXTASANA ADHERO® membranes can be used as temporary protection for ceilings/floors on multi-storey timber construction projects. Run-offs that remove water from the intermediate ceiling and/or building are to be provided so that rainwater does not accumulate on the membrane. Full-surface adhesion prevents moisture from spreading underneath the membrane if the membrane should be damaged during the course of construction. At element joints and/or joints with wood-based panels, at least 150 mm of SOLITEX EXTASANA ADHERO® should be provided as an overlap onto the adjacent element/wood-based panel. Timber (material) surfaces that may have become damp can quickly dry out again thanks to the high vapour permeance. Pro Clima can also supply the ADHERO® Floor Drain to allow rapid shedding of water on large expansive flat flooring sections.

Use to achieve airtightness of walls on timber structures

The pro clima SOLITEX EXTASANA ADHERO® system can be used to achieve airtightness on timber-element walls (wooden-frame, Glue Laminated Timber (GLT) and CLT elements) on the inside and outside. In the case of membranes applied on the exterior in particular, it should be ensured that the airtightness layer of the walls is bonded to the airtightness layers of the roof surfaces. For installation on the exterior, these products additionally provide weather protection during the construction phase. Full-surface adhesion with the relevant subsurface also ensures that seepage underneath the membranes cannot occur.



Vapour permeable fibrous insulation on the outside of SOLITEX EXTASANA ADHERO® allows the timber to remain dry.

Use for the protection of timber structures Behind cladding systems

After driving rain has fallen on a cladding systems (e.g. brick veneer), heating up can result in a microclimate with increased relative air humidities. To prevent this moisture entering into the component, membranes with a slightly increased diffusion resistance should be fitted on the exterior of wooden-frame construction elements. The SOLITEX EXTASANA ADHERO® membranes have a vapour resistance (MVTR) of 2.1 MN.s/g for this purpose, which protects the component from the outside and also allows for drying out. These membranes can be stuck directly onto dry, clean and dust-free subsurfaces. Pre-treatment with TESCON® PRIMER RP may improve adhesion to subsurfaces.

Moisture in materials due to construction work

The low vapour resistance of SOLITEX EXTASANA ADHERO® allows moisture to dry out of the construction materials that are used. In some cases if the substrate material heats up in the sun it is possible that the substrate off gases causes small bubbles to appear even through the membrane was installed smooth. The performance of the membrane as an airtight layer and/or as weather protection is not compromised by this, provided that these bubbles do not open up the membrane overlaps.



Quality assurance

As a means of confirming the airtightness of the structure, a Blower Door test carried out in accordance with AS/NZS ISO 9972 is recommended after the installation of the air control membrane, tapes and sealants. This also assists in identifying any water ingress paths, preventing staining of the timber. In contrast with the case of membrane installation on the interior, quality checking using the differential pressure procedure (e.g. using Blower Door) is only possible with overpressure for membrane installation on the exterior. In this case, fog must be generated in the interior of the building using a fog machine. The airtightness of detail features can then be checked on the exterior.

No 'tent effect'

Non-porous SOLITEX EXTASANA ADHERO® offers particularly good seal tightness against driving rain. This membrane can be applied over the surface of insulation materials or the roof decking. A tent effect is reliably prevented by the monolithic functional film and the multi-layer structure. The term 'tent effect' describes the phenomenon whereby a camping tent fabric allows large amounts of moisture to wick into the inside at points where they are in contact with inside objects.

No timber treatment required

When applied in the factory, the SOLITEX EXTASANA ADHERO® system will help keep the structure dry from factory to site, during erection as well as its vapour permeable properties allowing for drying during operation. This removes the need for chemical treatments of timber to prevent mould or timber rot. Avoiding chemical treatment is a necessity for airtight mass timber structures to ensure occupant health and wellbeing. SOLITEX EXTASANA ADHERO® is Red List Free, meaning no harmful or toxic ingredients are used in its manufacture ensuring excellent indoor air quality for the occupants of mass timber structures.



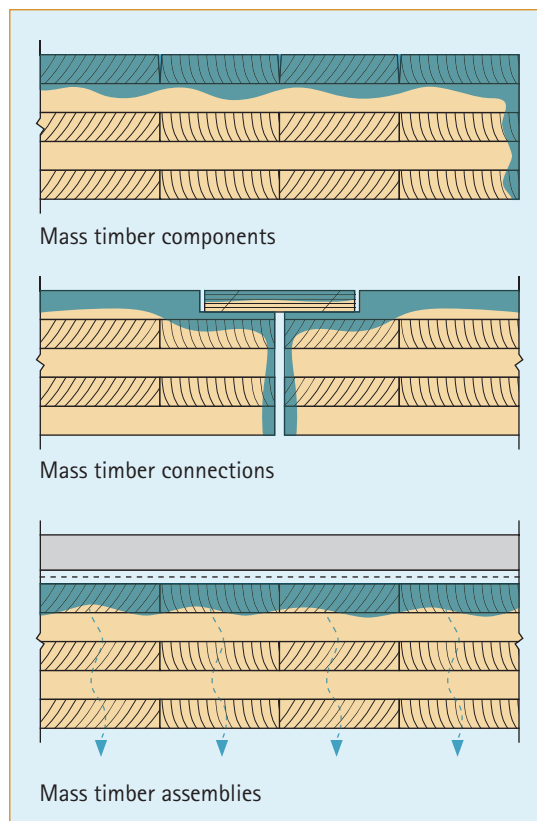
Leaky module joint



Ugly water stains on a cross-laminated timber ceiling



CLT ceiling subjected to excessive dampness





The facts presented refer to the state of current research and practical experience. We reserve the right to make changes to the recommended designs and processing as well as the further development and the associated quality change of individual products. We are happy to inform you about the current state of technical knowledge should you contact us directly.



05-09-2023

Pro Clima Australia Pty Ltd

Freephone: 1800 PRO CLIMA (776 254) · welcome@proclima.com.au

www.proclima.com.au

Pro Clima New Zealand Ltd

Freephone: 0800 PRO CLIMA (776 254) · welcome@proclima.co.nz

www.proclima.co.nz

