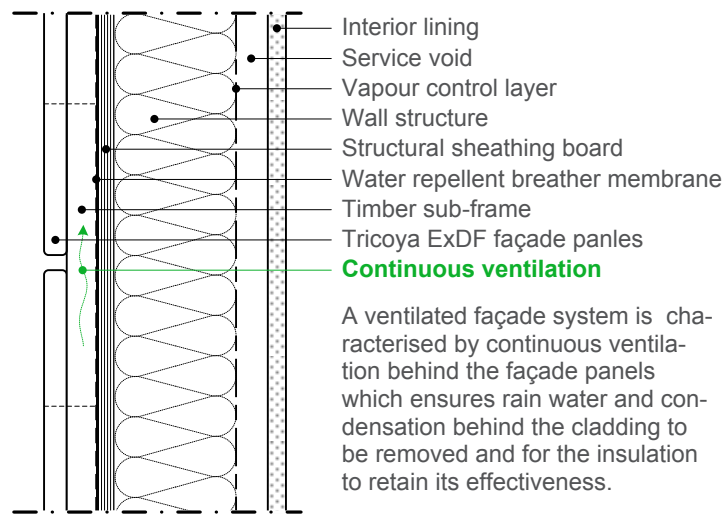


TECHNICAL INFORMATION SHEET

TRICOYA® ExDF

INSTALLATION GUIDELINES- APAC

VENTILATED FAÇADE SYSTEM



Important design considerations

- The ventilated cavity should have a depth of ≥ 15 mm
- Ensure a continuous ventilation by allowing for sufficient ventilation in- and outlets at top and bottom (at least 200 mm^2 per m^2 façade surface)
- Design for furring strips, flashings and weeps to prevent water intrusion
- If necessary, use additional outdoor caulks or sealants around windows and doors
- Avoid installing cladding in the 'splash zone' (between ground level and 200 to 250 mm height) because of a staining risk and reduction of the coating service life
- Apply a gravel section below the cladding

Do not:

- use staples or T-nails
- drive the nail/screw heads into the board
- use galvanised or zinc plated fasteners/accessories
- fit boards flush to masonry or brickwork

Joints

- Allow for at least 5 mm free space around the panels, at corner details and/or when meeting other construction elements
- When joints are left open:
 - use a UV resistant breather membrane
 - protect timber battens with a suitable weather resistant joint tape
 - vermin mesh might be required at certain widths

System requirements

- The panels need to absorb the wind load and convey this to the sub structure
- The deflection of the panels due to this wind load should not exceed $1/200$ th of the spanning distance (the distance between two fasteners on either direction)

Sub-frame

- The sub-frame used needs to be suitable for the fasteners chosen and able to withstand the loads
- The material of the sub-frame must be of sufficient durability:
 - timber: durability class 1 or 2
 - aluminium: AA 3003, 6061, 6063, 6082 or eq.
 - metal: corrosion resistant steel or isolate from direct contact with the use of e.g. Plastic spacers, EPDM tape and/or coating the metal

Fasteners

Wood screws for face fixing:

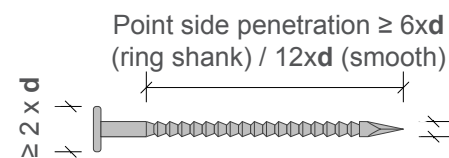
- Stainless steel (A2 or A4)
- Head \varnothing at least 12 mm or hole \varnothing + at least 5 mm
- Screw length ≥ 25 mm + panel thickness (+ spacers)
- Holes pre-drilled: $\geq 120\%$ of shank \varnothing

Rivets for face fixing:

- Stainless steel (A2 or A4) or aluminium (AlMg5)
- Head \varnothing at least 14 mm or hole \varnothing + at least 8 mm
- Screw length at least 5 mm + panel thickness + sub-frame thickness (+ spacers)
- Holes pre-drilled: $\geq 120\%$ of shank \varnothing

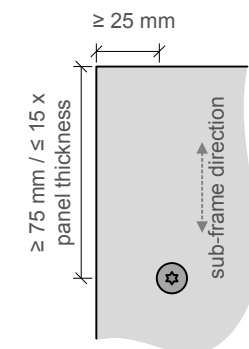
Ring shank or other improved nails for cladding boards:

- Stainless steel A2 (general applications)
- Stainless steel A4 (coastal or industrial sites)
- Holes pre-drilled:
 - 1 mm less than nail \varnothing
 - to 80% of screw shank \varnothing

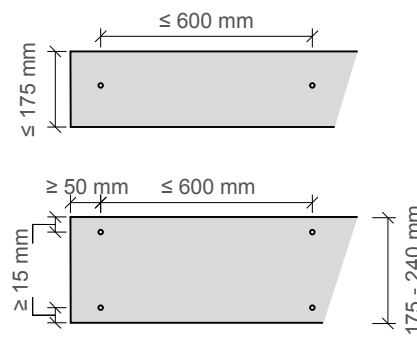


Placing

Façade panels:



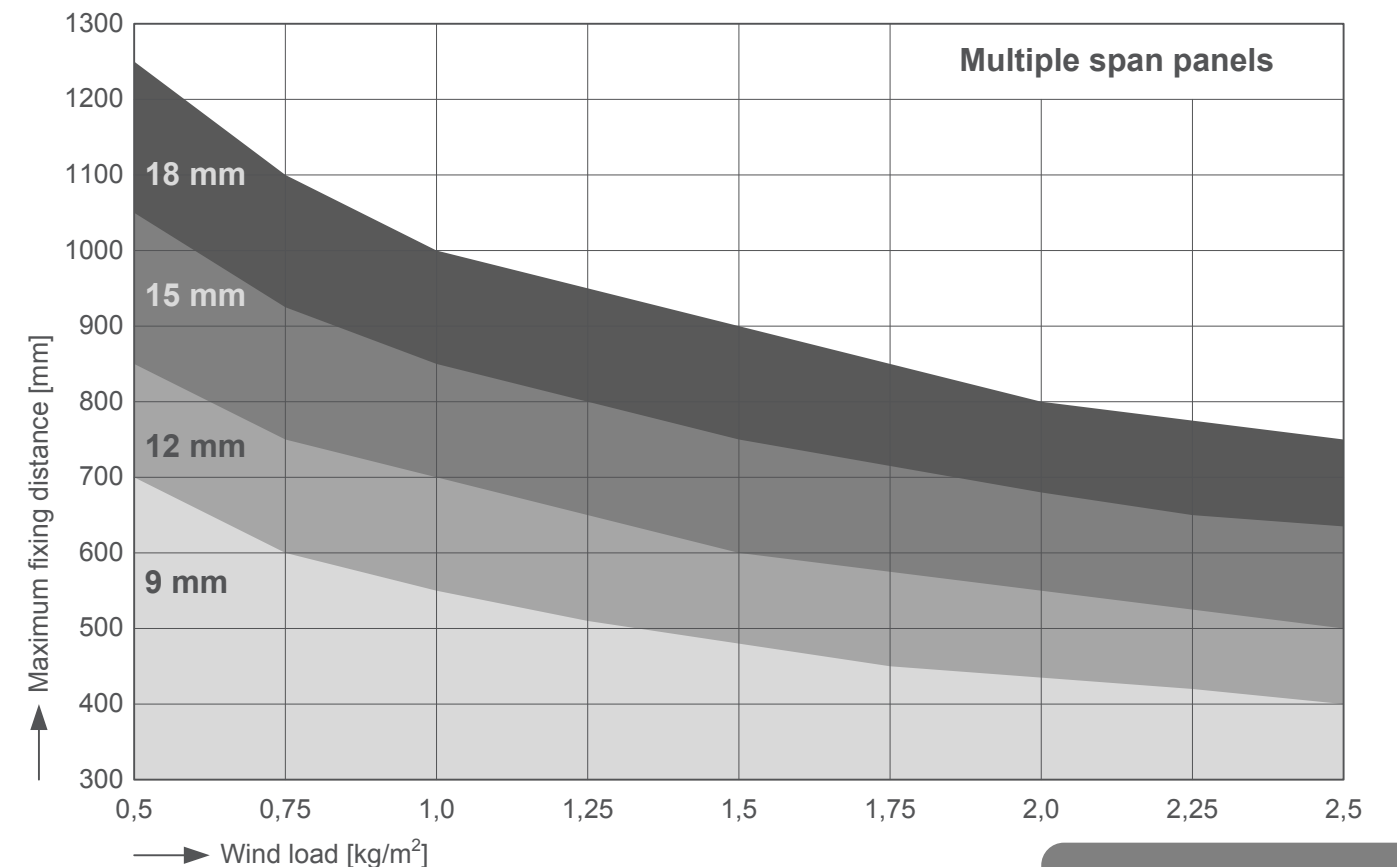
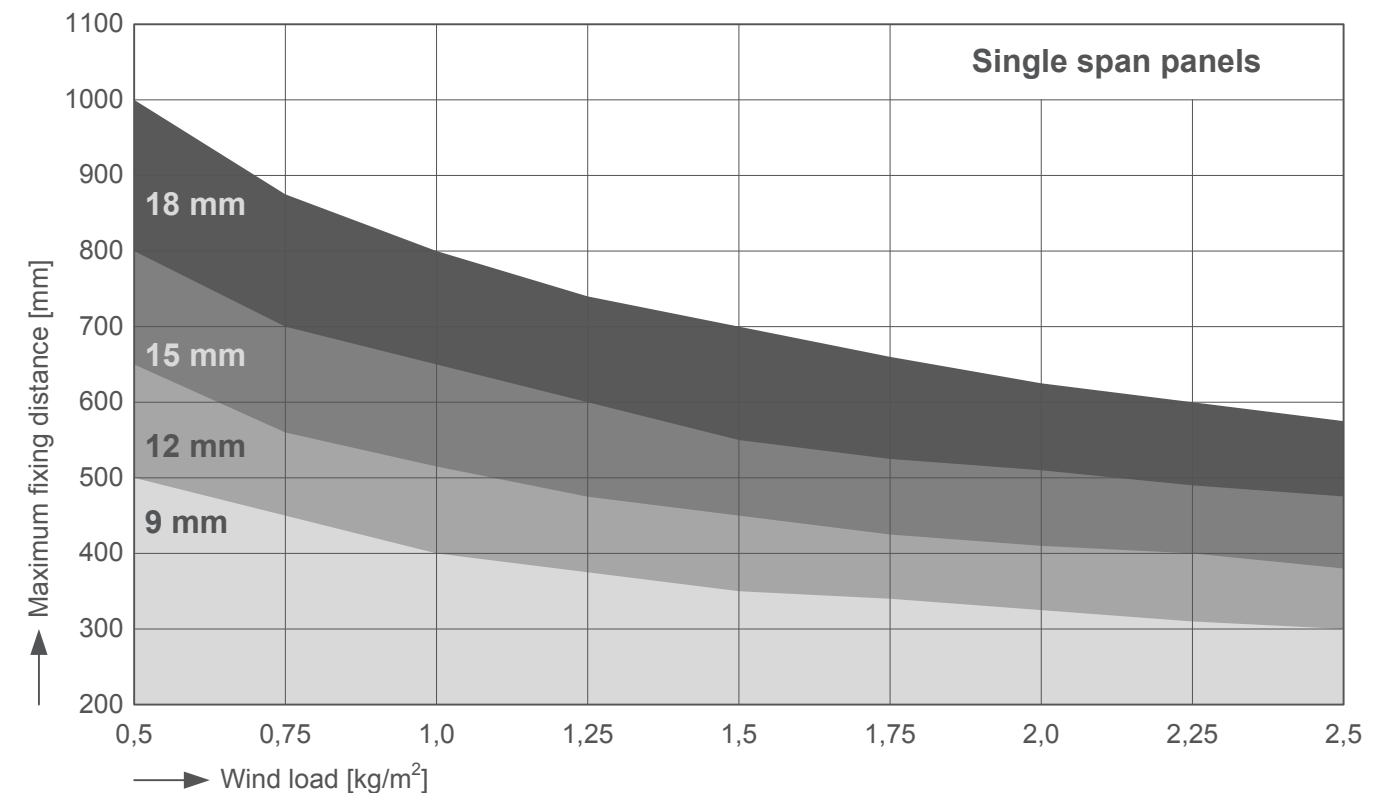
Cladding boards:



MAXIMUM RECOMMENDED FIXING DISTANCES - FAÇADE PANELING

As a general guideline, the graphs below depict the maximum fixing distances for the different panel thicknesses, based on the maximum tolerable deflection of the panel ($1/200$ th of the span).

The strength of the total façade system is dependent on the fasteners and sub-frame used and must be checked additionally by a licenced engineer.

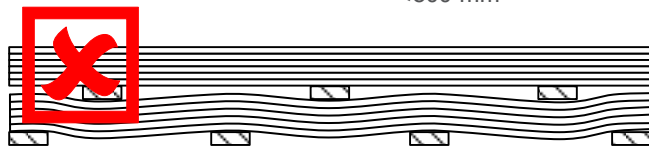
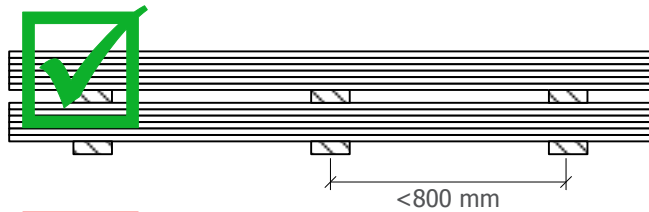


Technical information sheet – Tricoya ExDF APAC
 V 09.16 – this information is intended for professionals wishing to use Tricoya ExDF to create beautiful, reliable and highly durable end products. Should you require further information or have any comments about this document, please contact your local sales representative.

HANDLING & MACHINING

Storage & handling

- Store boards horizontally, in reasonably dry (well ventilated) conditions and lifted clear of the floor
- Centre bearers on 800 mm max
- Use at least 3 bearers for sheets of 15 mm and up and at least 4 bearers for thinner sheets
- Cover Stored sheets with a breathable barrier / “vapour-open” plastic
- Storage at the building site:
 - should be at least 10 cm above concrete flooring and 30 cm above ground
 - additional protection from rain with plastic sheets is recommended
 - sufficient ventilation underneath the sheets is required to prevent mould



Transport

- In order to prevent damage, especially if coating is to be done on-site, products should be carefully transported

Cutting & machining

General

- Conventional wood working equipment and tools.
- Use carbide-tipped tools or diamond tipped for high (-er) volumes.
- Make sure that knives are aligned and sharp
- MDF/particle board saws and cutters with:
 - Cutting (hook) angle 10° to 20°
 - Clearance angle 20° to 22°
- Feed speed in line with at least 8 cutter marks per cm.
- Dust removal: air speed of 22 – 30 m/sec.

Sanding

- Tricoya ExDF has a 150 grit factory finish
- Use carbide-based or a modified ‘closed coat’ abrasive for sanding
- Sand cut edges with 150-240 grit paper

Do not:

- Deep sand the faces
- Perform heavy one-sided sanding

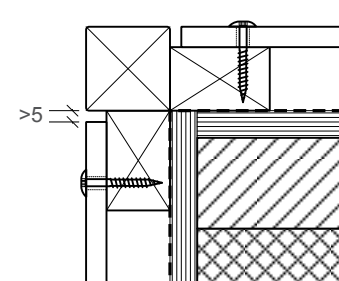
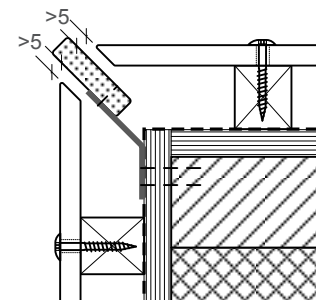
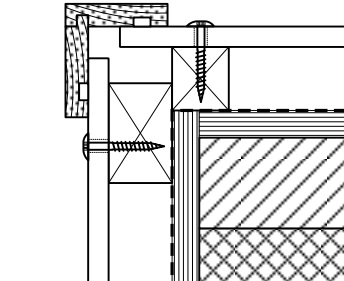
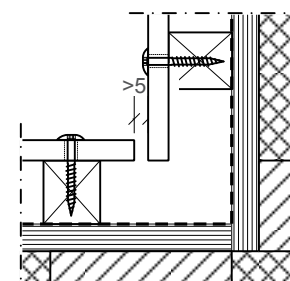
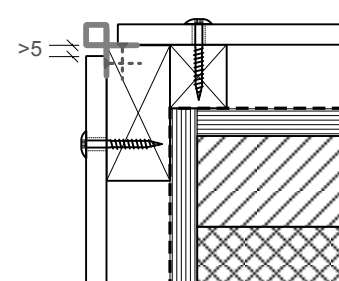
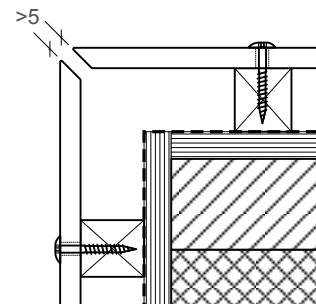
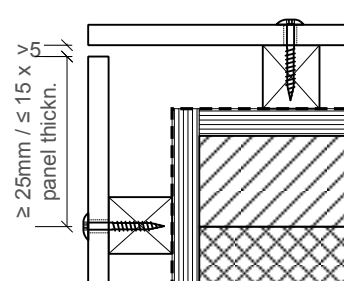
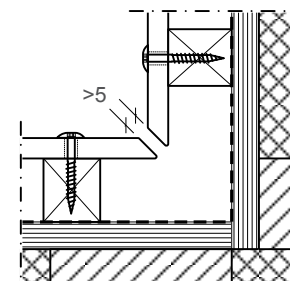
Glueing

- Use D3 or D4 class adhesives for making fixed corner profiles, such as PU, RPF, or EPI wood adhesive systems

CORNER SOLUTIONS

Interior corners:

Exterior corners:



The design of the system must be in accordance with all applicable building standards and regulations. The strength of the total system - spacing, number and type of fasteners required for the occurring wind load - must always be checked by a licensed engineer. To the best of the knowledge and belief of Tricoya Technologies Ltd the information contained in this document is in accordance with the facts and is provided on the basis that Tricoya Technologies and/or any of its affiliates, officers, employees or advisers are not liable for any loss or damage whatsoever in respect of the accuracy or completeness of such information or the result of having acted upon it.

COATING

There is no technical need to finish Tricoya ExDF - guaranteed levels of decay resistance and dimensional stability apply with or without coating. However, uncoated Tricoya ExDF is susceptible to weathering in outdoor circumstances.

If you wish to apply a finish to Tricoya ExDF, it is recommended to do so before installation, as at least a primer and preferably also a mid coat should be applied to all sides. Leaving the Tricoya ExDF to weather before applying a coating is strongly discouraged.

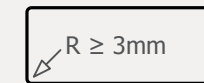
Please note that coating formulations vary per manufacturer and processes vary depending on the application equipment used and the end-product design.

We highly recommend having the coating manufacturer involved in the process as they have in-depth knowledge of their products, suitable application techniques and how to determine the performance of the finished product.

Best practices

1 ROUNDED EDGES

Tricoya ExDF façade panels that will be coated should be rounded with 3mm radius corners.



2 PREPARATION

Tricoya ExDF must be dry (m.c. <8%), clean and free from dust. This is especially critical when brush applying top coats on site.

3 FACTORY COATING

A fully factory applied coating, applied on all sides, is strongly recommended. When site finishing, at least a primer and mid coat should be applied in the factory and the top coat must be applied before the panels get wet on site.

4 END GRAIN SEALER

It is recommended to treat the edges of the panels with end-grain sealer for aesthetical reasons, with a product that is compatible with the paint system and approved by the coating manufacturer.

5 MOULDICIDE

Coating systems should contain an effective mouldicidal component to reduce the risk of growth on and beneath the coating and possible disfigurement.

6 STAIN BLOCKER

For best results the base coat preferably includes an effective and well applied anti stain blocking primer.

7 TOP COATS

Apply at least two top coat layers and sand lightly in between.

8 APPLICATION

Dip and flow coat application of the first coating layer is particularly effective in forming an all-encompassing first coat.

9 THICKER LAYER

Thicker layers reduce moisture absorption and film forming coatings provide the longest maintenance intervals.

10 GUIDANCE

Coating manufacturer's application methodologies and guidance should be followed with particular focus on avoiding cold coatings (should typically be above 15°C at application), correct film thickness and appropriate drying techniques / conditions.

11 CONTROL CURING

Coatings should be thoroughly cured in a moisture and temperature controlled environment (especially in colder months) and in line with coating manufacturers guidelines. This often involves overnight drying between layers.

12 STORAGE

Coated cladding boards should be stored on site as per coating manufacturers guidelines, with particular attention to the final curing of the top layer and using suitable packaging materials. Avoid wetting of not-fully cured surface finishes.