

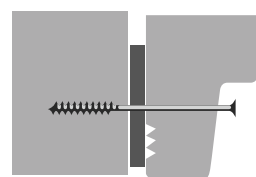
Installation Guidance for Windows and Doors

It is the responsibility of the installer to know and understand the installation process that will guarantee system longevity and functionality. All window elements must be stored in a neat safe manner and elevated from direct contact with the floor. Care should be taken to avoid contact with other build materials that may damage the finished surfaces of the product. Where there is a requirement to desash the product to aid on site handling / distribution, please refer to the guidance documents, should further information be required please contact Rational.

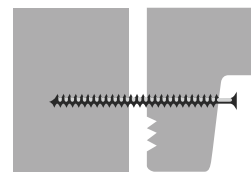
Overview Installation Guidance for Windows

In order to maintain functionality and longevity of the window / door system adherence to the guidelines detailed below is required.

- All elements must be installed plumb, level and square. The type of fixing used required to install the product will be governed by the as built condition, it is the installers responsibility to ensure that the fixing application used is robust and suitable.

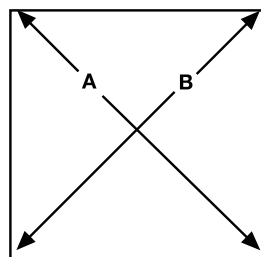


Screw fixing using frame packers



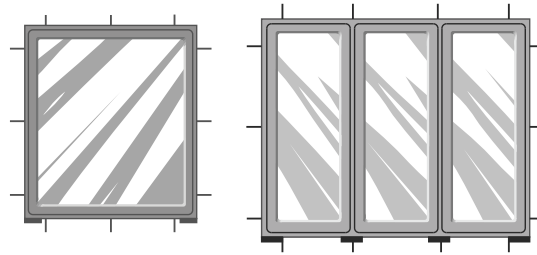
Frame screw

- Frame packers should be of a suitable size and positioned to allow the application of internal and external seals
- Frame packers should be of rigid material, like waterproof veneer or plastic shim.
- Where elements have integral locking mechanisms an additional fixing should be applied adjacent to the lock and packed accordingly. The purpose of this is to provide extra strength in and around these components and enhance the security of the system.
- Where Secure By Design is a project requirement additional friction fixed packers will be required at lock point and hinge locations. These should be positioned at a distance no greater than 150mm either side of the aforementioned components.
- The standard tolerance allowed for sealing purposes from the frame edge to the reveal structure is 12mm, this may vary dependent on the as built condition. At cill locations the tolerance allowed may differ dependent on the design intent
- In addition to using a standard spirit level for checking plumb level and square, an additional check would be to measure the diagonals from corner to corner, the dimension taken should be the same



A = B by fixing

When applying a direct / through frame fixing, fixing holes should be positioned 100-150mm from either corner and then at centres no greater than 900mm. It is imperative that all fixings gain a viable purchase and that the structure is sound and in good condition.



- ! Securing
- Fastening using packers

Overview Installation Guidance for Doors

When installing doors the principles for frame fixing applications are the same as for windows. However an additional consideration to be made is the fixing locations to the hanging / hinged side of the door element, there is a requirement to position fixings on this jamb as close to the hinge location as possible to provide additional support while still maintaining the required fixing centres.

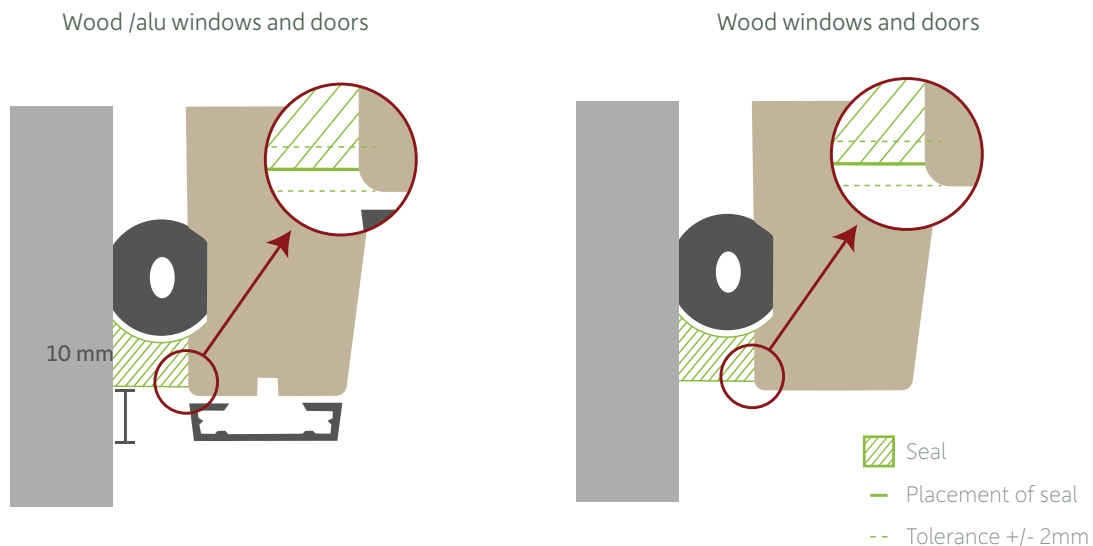
In order to maintain stability and prevent deflection the threshold should be supported with packers in a maximum distance of 300 mm and with a contact surface of at least 25cm².

Application and Position of Perimeter Seals

When applying a traditional wet seal in order for it to remain viable three point adhesion must be avoided, to facilitate this dependent on the structure formation a closed cell polyethylene foam or bond breaker tape should be installed prior to the wet seal application.

Wood/alu windows and doors

On our wood / alu product range any seal must be placed inboard of the aluminium cladding as indicated in the image below. Seals must not be applied forward of this point, to do so would compromise the drainage and ventilation paths of the system which may lead to product failure.



Distribution and Handling

It is the responsibility of the installer to ensure that distribution and handling processes are completed safely. Guidance on these matters is contained on a label attached to each pallet that is delivered.