

TEKTON WEATHERIZATION SYSTEM SPECIFICATION

SYSTEM DESCRIPTION

The Tekton Weatherization System consists of TEKTON Wall Underlay, Tekton SEAM TAPE, TRADE-SEAL's and SUPER-STICK or the One Piece Sill System

The Tekton Weatherization System is used behind wall claddings to form a secondary weather resistant barrier for timber and steel framed buildings.

SYSTEM PROCESS

The TEKTON Wall Underlay is fixed directly to the outside of the framing. The Wall Underlay over the openings is then cut and fixed to the inside face of the framing.

Tekton SEAM TAPE is applied over the seams and Protecto Wrap, Super-Stick or ONE PIECE SILL TAPE is installed around the openings. TRADE-SEAL's are fitted over pipe and conduit penetrations through the building envelope to provide an air and moisture seal.

PRODUCT DESCRIPTION

- **TEKTON WALL UNDERLAY** is a synthetic breather-type Wall Underlay for use as a flexible wall wrap and air barrier. *TEKTON cannot be used behind direct fix non-absorbent claddings.*
- **TEKTON SEAM TAPE** is a white polypropylene film coated with a cold weather acrylic adhesive. When applied over the seams of the installed Wall Underlay it provides continuity of the Wall Underlay and assists in creating an effective drainage plane. Tekton Seam Tape can also be used to repair small rips, punctures or tears in the Wall Underlay material.
- **SUPER-STICK** is an aggressive acrylic high performance window and door flashing tape.

- **PROTECTO WRAP ONE PIECE SILL TAPE** is a polyethylene faced, modified SBS rubberized asphalt, self adhesive membrane. One Piece Sill tape is a one component secondary flashing system for 100mm (nominal) deep openings in timber and steel framing.

- **TRADE –SEAL** is a highly elastic EPDM sleeve fitted with a self adhesive flange that will adhere to most clean and dry substrates. TRADE-SEAL provides an air and moisture seal around pipe and conduit.

FEATURES /BENEFITS

TEKTON WEATHERIZATION SYSTEM

- A system that combines a range of respected products to form a secure construction envelope.
- Highly compatible product integration.
- A fully BRANZ appraised weatherization system. Can be exposed to UV and weather for up to 60 days.
- A system that combines superior strength, water holdout and flexibility with ease of installation.
- Meets the requirements of the New Zealand Building Code (NZBC) Clause B2 Durability and Clause E2 External Moisture.

TEKTON WALL UNDERLAY

- Tekton Wall Underlay can be used in all wind zones up to and including very high and extra high when used with RAB Systems.
- Tekton Wall Underlay is fire retardant with a zero flammability index and can be used without restriction on all buildings.
- Tekton Wall Underlay can be installed as an air barrier to walls that are not lined, such as gable ends.
- Tekton Wall Underlay has superior water hold out keeping framing drier while permanent cladding is installed.
- Tekton Wall Underlay has a 50 year durability.

- Tekton Wall Underlay can be left exposed for up to 60 days.
- Tekton Wall Underlay has optimal surfactant resistance (will not lose integrity if exposed to soaps, detergents and cleaning chemicals).
- Tekton Wall Underlay is Branz appraised #548 (2013)

TEKTON cannot be used behind direct fix non-absorbent cladding. Non-absorbent cladding must be on a cavity.

TEKTON SEAM TAPE

- High adhesion and tensile strength.
- Wide temperature application range.
- 60 Days UV exposure rating.
- Maximizes energy efficiency by sealing all joints.
- Improves air tightness and contributes to a secondary line of defence against exterior moisture penetration.

TRADE SEAL

- Full range of sizes.
- High adhesion
- Wide temperature application range .
- 90 Days UV exposure rating.

Maximizes energy efficiency by sealing all penetrations.
 Improves air tightness and contributes to a secondary line of defence against exterior moisture penetration

SUPER-STICK (OPTION 1)

- Can be installed in extremely cold conditions to -6 Deg.C
- Easy to install peel-and-stick application
- UV resistant for 90 days
- Will not react with sealants & no plasticizer migration.

Marshall Innovations recommend checking with sealant manufacturers for suitability.

- Can be used with fibre cement & wood based Rigid Air Barriers, check suppliers specifications for suitability.

PROTECTO WRAP ONE PIECE SILL TAPE (OPTION 2)

- Use Protecto Tak Spray with One Piece Sill Tape
- The tape can be overlapped by 100mm to join to another roll. There is no wastage.

- One Piece Sill Tape is BRANZ appraised #591 (2014)

DURABILITY

Provided the system is not exposed to the weather or Ultra-violet light for more than 60 days the Tekton Weatherization System will be durable and serviceable for at least 15 years (compatible with that of the joinery).

SURFACE PREPARATION

Studs must be provided at a maximum of 600mm centres. Nogs must be fitted flush between the studs at a maximum of 1200mm centres. The framing must be free from any sharp protrusions that may damage the wrap.

Where cavity battens are installed at greater than 450 mm centres, the wrap must be supported between the battens to prevent the wrap bulging into the cavity space when insulation is installed.

INSTALLATION

TEKTON WALL UNDERLAY

The branded side of the wrap must face away from the framing. The wrap must run horizontally and extend from the upper side of the top plate to the underside of the bearers or wall plates supporting ground floor joists, or below bottom plates on concrete slabs.

Horizontal laps must be no less than 75mm with the direction of the lap ensuring that water is shed to the outside.

End laps must be made over framing and be no less than 150mm wide.

Fix the wrap into place using 6-8mm zinc plated staples, hot dip galvanised large head clouts, tek screws or proprietary wrap fixings.

Tekton Wall Underlay can be added as a second layer over head flashings as per E2/AS1 or the head flashing can be sealed to the wrap using Protecto Wrap Head Flashing Tape.

When fixing wrap in windy conditions, care must be taken due to the large sail area created by the roll widths.

- Position the roll of Tekton Wall Underlay against the framing with a short length of wrap free of the roll.
- Align the guide marks printed on the Tekton Wall Underlay with visible studs and nail /staple to the framing
- Unroll the wrap across the framing and fix to all framing members at a maximum of 300mm centres.
- Keep the wrap straight and taut over the framing.
- The wrap should be run over any openings and these should be left covered until the windows and doors are ready to be installed.

To form the openings cut the wrap at a 45 degree diagonal in from each corner. Fold and staple the wrap to the inside of the framed opening. Excess wrap can be trimmed to finish flush with the internal face of the framing.

TEKTON SEAM TAPE

Apply Tekton Seam tape to all horizontal and vertical Wall Underlay lap joints. The lap joint should sit halfway under the tape width. Press all tape firmly into position to enhance adhesion.

The Tekton Seam Tape can also be used to repair small rips, punctures or tears in the Wall Underlay material. For bigger repairs overlap the area with new Wall Underlay and tape into place. The overlapping material must extend at least 150mm beyond the damaged area.

TRADE SEAL

- Select appropriate diameter TRADE-SEAL – Collar should be tight
- TRADE-SEAL collar extension can be trimmed to get the best fit
- Ensure the surface to receive the TRADE-SEAL is clean and dry
- Remove backing paper and slide collar over penetration.

Powder or lubricant can be applied to penetration to aid installation.

- Adhere TRADE-SEAL at 45° (diamond style) to aid moisture run off and smooth onto substrate to ensure adhesion.
- Slide the TRADE-SEAL rubber boot along the pipe / conduit to fit within the cavity. The rubber boot should always be concealed from UV.
- Trade-Seals should never be forced over pipe or conduit.

SUPER-STICK INSTALLATION (OPTION 1)

100mm Framing Install with 150mm SUPER-STICK

The selected wall underlay must be installed in accordance with the Manufacturer's instructions. It must completely cover the joinery opening. The wrap is then cut on a 45° angle away from each corner of the opening and secured to the inside of the opening.

Before SUPER-STICK is applied, all substrates must be clean, dry & free from any surface contaminants such as dust & grease that may affect adhesion. SUPER-STICK is available in 75 mm, 150 mm & 200 mm × 23 metre roll sizes.

- Cut 4 - 75 mm wide by 150 mm long sealing tape 'butterfly' pieces. Apply 2 strips on the bottom corners at a 45 degree angle.
- Overlap the corner by 3 mm to create a seal at the sill/jamb junction.
- Measure and cut a length of SUPER-STICK tape to the length of the sill + 300 mm. The tape is installed flush with interior face of the opening & is applied along the entire length of the sill & 150 mm up the jambs.
- Measure and mark 150mm up the jambs
- Remove 100mm of the release film off the inside back edge of the SUPER-STICK.
- Align this with the 150mm mark up the jamb and flush with the inside edge of the frame.
- Press the tape firmly onto the wrap and apply down the frame into the corner. Ensure the tape is formed tightly into the corner.

- Continue peeling the release film as you move along being careful to keep the tape aligned to the inside edge. Run tape up the opposite jamb 150 mm.
- The overhanging tape is cut at the corners of the opening to allow the tape to be folded onto the face of the wall underlay & butterfly tapes that are already in place. Peel off the release backing film & fold down & apply to wall underlay face & over butterfly tapes.
- *Sill & Nail sealability – Apply a layer of 75 mm SUPER-STICK over the top of the original flashing tape along the entire length of the sill only. Align the tape to the inside face of the sill. This is a BRANZ requirement for horizontal surfaces with SUPER-STICK where water may pool & to ensure nail penetrations self-seal.* Alternatively apply 150 mm by 150 mm squares of Super Stick on top of the original flashing tape on the sill where fixings will penetrate.
- Jamb/head application –Cut 2 pieces of SUPER-STICK at 300 mm. The tape is installed 150 mm down the jamb & 150 mm along the lintel at each of the top corners of the window or joinery opening. A 75 mm by 150 mm long sealing butterfly tape must be installed at 45 degrees across the corner of the head/jamb junction overlapping the corner by 3 mm to create a seal at the corner junction.
- 75 mm wide SUPER-STICK is used at joinery heads to seal head flashing up stands to the wall underlay. This piece is cut 100 mm longer than the flashing & is to run past each end of the flashing by 50 mm.
- As SUPER-STICK is a pressure sensitive tape, after application ensure all the tape is pressed firmly onto the substrate.

150 mm Framing Install with 200 mm wide Super Stick

- Cut 4 strips of 75mm x 200mm Super Stick. Apply 2 butterfly strips at a 45 degree angle to the 2 bottom corners only. Overlap the corner by 3mm to create a seal at the sill/jamb junction.
- Measure the length of the sill and cut a piece of SUPER-STICK 400mm longer than the length of the sill.
- Measure and mark 200mm up the jamb.

- Peel 100mm off the inside release film and apply the SUPER-STICK at the 200mm mark up the jamb. Continue to remove the release film as the SUPER-STICK is applied; ensuring tape is aligned with the inside of the joinery opening and care to ensure SUPER-STICK is formed tightly into the corners at the sill/jamb junction. Continue removing.
- Release film as SUPER-STICK is applied along the length of the sill and 200mm up the other jamb. Remove the remaining release film. Cut the SUPER-STICK at the corners away from the frame and the overhanging SUPER-STICK can be folded over the face of the wall underlay and over the butterfly tapes at the corners.
- Cut another piece of SUPER-STICK the length of the sill. Overlay this onto the sill only. This is to ensure BRANZ requirements are met for nail sealability.
- Cut 2 pieces of at 400mm SUPER-STICK long. The tape is to be installed 200mm down the jamb & 200mm along the underside of the lintel. The install process is the same as for the sill except the two remaining 200 x 75mm butterfly pieces are applied last over the top at a 45 deg angle across the corner of the head/jamb junction overlapping by 3mm to create a seal at the corner junction.
- When joining 2 sections of tape, the overlap must be 100 mm minimum.

PROTECTO WRAP ONE PIECE SILL TAPE (Option 2)

- Measure and mark 150mm up from the LHS bottom corner of the opening.
- Measure the sill length.
- Measure and cut a length of One Piece Sill Tape to the sill length + 300mm.
- Ensure ProtectoTak Spray adhesive is applied to all surfaces that will be taped. The primed area must be tacky to the touch before the tape is applied. Re-application of the primer may be required if the primed surface isn't tacky.
- Roll up the cut length. Peel back 50 mm of the backing paper to expose the black adhesive.
- Align the Protecto Wrap One Piece Sill tape with the 150mm mark on the jamb and flush with the inside edge of the opening. Apply the tape down the frame and into the corner.



NOTE: The divided side of the tape must face to the outside of the opening.

- When the sill jamb junction is reached ensure the tape is pressed firmly into the corner.
- Continue removing the backing paper and sticking the One Piece Sill Tape across the length of the sill and up the other jamb. Keep the tape flush with the inside edge of the opening.
- Fold the upper front piece of the branded flap back into the opening to expose the lower section of the combination tape.
- Starting at one end, remove the release film and fold the flexible membrane onto the face of the opening.(Do not overstretch the membrane)

NOTE: For ease of installation, adhere the middle and ends of the membrane onto the face of the opening before removing the release film.

- Fold the branded flap forward and cut at the corners.
- Fold the branded flap over the top of the exposed membrane.

TOP CORNERS

- Cut a 300mm length of One Piece Sill Tape
- Remove the backing paper and fold the tape in half, keeping the adhesive membrane to the outside of the fold.
- Position the tape into the corner. Adhere the tape down the side, then across the top of the opening. The tape must be pressed firmly into the corner

NOTE: The divided side of the tape must face to the outside of the opening.

- Fold the branded flap back into the opening to expose the lower section of the combination tape.

- Remove the release film and fold the flexible membrane onto the face of the opening.(Do not overstretch the membrane)

NOTE: For ease of installation adhere the ends of the membrane onto the face of the opening before removing the release film.

- Fold the branded flap forward and cut at the corners.
- Fold the branded flap over the top of the exposed membrane.

NOTE: When correctly installed to the top corners, the tape should extend 150mm down the jamb and 150mm across the lintel and be folded 50mm approx. out onto the face of the opening.

HEAD FLASHING

For the taping of head flashings use Protecto Wrap Super-Stick 75mm.

After installation of the One Piece Sill Tape firmly smooth all tape to ensure maximum adhesion.

REPAIRS

Should air become trapped under the tapes at any stage of installation, smooth the trapped air to the outside of the tape.

If minor damage occurs then another piece of tape can be used for repair as long as it extends at least 100mm beyond the damaged area. If the damage is more than minor then the installed tape must be replaced.

WARRANTY

All products used in the Tekton Weatherization System are warranted to be free of defect in manufacture for a period of 15 years. This warranty is limited to replacement of the products only. Marshall Innovations (the distributor) is not liable for incorrect installation or any accidental or wilful damage to the product.

SAFETY PRECAUTIONS

The materials must be kept away from direct exposure to heat and flames. Extra precautions must be taken when using the Protecto Tak Primer/Adhesive in areas where there is insufficient ventilation. Do not breathe the fumes and avoid skin contact.

SHELF LIFE

The products have a recommended shelf life of 1 year from date of manufacture.

STORAGE

Store all materials under cover, in clean dry conditions and away from direct exposure to sunlight. Do not remove the tapes from the carton until ready to use and always replace in the carton for storage.

NOTE:

Plasticiser Migration may occur with One Piece Sill Tape, to avoid the issue of Plasticizer Migration please isolate the tape from selant by using Danco 830

TEKTON WEATHERIZATION SYSTEM



* The NZBC code dictates that a sealant conforming to ISO 11600 Group F Class 25LM is to be used as the window Joint sealant. Sealants that conform to the ISO standard are NOT compatible with bitumen containing sill wraps and degradation of the sealant may occur. Even sill wraps that have a polyethylene protective film are considered as incompatible as long-term isolation of the materials is not guaranteed.

In order to ensure a long-term seal that will meet NZBC requirements an impervious aluminium tape TD830 has to be applied to all bitumen Sill Tapes to provide a barrier between the tapes and the sealant.

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