



Thank you for purchasing your Xtend Garden Building from Forest Garden. Simply follow these step by step instructions and our top tips for a straightforward assembly. If you have any questions or need advice, our friendly team is here to help.

# XTEND 4.0 GUIDE BOOK

## (4.0x3.0M)



### Missing something?

Call our aftersales team on  
0333 777 7089

### Need more information?

Call our technical team on  
0333 321 3142

### Visit our website for more information

[www.forestgarden.co.uk](http://www.forestgarden.co.uk)

# 'Fixtures & Fittings' Box Contents

All of our Xtend garden buildings are constructed in the same way. They simply come with slightly different components depending on the size you have purchased. Don't worry if your 'fixtures and fittings' box contains many extra fixings at the end of the build (you haven't missed a bit!). We have sent you a **generic fixtures and fittings box** to suit the Xtend garden building collection.

- ① 6.7 x 150mm Screws  
QTY: 40
- ② 6.7 x 125mm Screws  
QTY: 90
- ③ 7.5 x 112mm Screws  
QTY: 35
- ④ 5 x 80mm Screws  
QTY: 280
- ⑤ 4 x 50mm Screws  
QTY: 220
- ⑥ 4 x 35mm Screws  
QTY: 430
- ⑦ 1.6 x 30mm Panel Pins  
QTY: 155



- 750ml B3 Fill & Fix Expanding Foam QTY: 3 ⑧
- 'Star' Drill Bit QTY: 1 ⑨
- 300ml Anthracite Grey Silicone (7016) QTY: 1 ⑩
- 310ml Translucent Silicone QTY: 1 ⑪
- 10 x 10mm Staples QTY: 1000 ⑫
- 1-6mm Glazing Packers QTY: 10 of Each ⑬
- 12mm Wood Plugs QTY: 100 ⑭

Please keep plastic bags and small parts away from children.

## Tools Required

Assembly is relatively straightforward if you follow these step by step instructions. All screw holes should be **pre-drilled** to avoid splitting the timber.

We recommend using the following tools (not supplied):



Drill & 2-6.5mm Drill Bits



Rubber Mallet / Hammer



Tape Measure



Spirit Level



Ladder



Foam Gun



Sharp Knife (Stanley Knife)



Hand Saw/Hand Circular Saw



Heavy Duty Staple Gun



Sander



### IMPORTANT

Assembly requires 2+ adults & 2+ person lifts at all times.



### REMINDER

Always pre-drill before screwing.

# Health and Safety

We strongly recommend that PPE (Personal Protective Equipment) is used throughout your Xtend garden building assembly to ensure you are protected from any potential health and safety risks. **Do not exempt yourself from wearing PPE even if the job 'only takes a few minutes.'** Use any guidance stated on the supplied fixings and where you feel it is applicable to use PPE as part of your step by step assembly.



## Chemical Information

Due to the high quantity of products we have supplied and recommended to use, **we strongly recommend checking all the chemical information, application, shelf-life, storage, cautions and health and safety sections which will be listed on the back of each product.** For further information, these branded products can be found online where they will have PDF technical sheets to access. If you have any further concerns or queries, you can contact the suppliers/manufacturers for extra information.

**Do not leave empty containers where residue could be harmful to children, animals or the environment.** Replace lids and move any containers to a central disposal point in accordance with local regulations. Do not pierce cans. In the event of a spillage, remove all sources of ignition, ventilate the area, and remove people from confined areas. Spillages should be mopped up immediately with an inert absorbent material such as sand.

## B3 Fill & Fix Expanding Foam Extra Information

B3 Fill & Fix Expanding Foam is just like many other types of expanding foam. It is vital that you know how to set up and use the expanding foam correctly for an easy application during your assembly. As this is a generic fixing pack and we do not supply any tools, the expanding foam does require a **foam gun**.

### Preparation & Application

Before applying your expanding foam, you need to ensure that the surfaces to be bonded are firm, clean, dry and free from dust, grease or contaminants that may hinder effective adhesion. All of the construction components that will be in contact with the expanding foam must be properly prepared as described above. It is advisable to have a can of 'Foam Cleaner' to hand.

Ensure your foam gun is set up correctly and shake your expanding foam can vigorously prior to use. Use the gun with the can uppermost and as close to vertical as possible. Otherwise, you will have poor foam discharge during your application. Also, take care not to overfill joints when applying to your base kit panels. Fresh foam spills can be removed straightaway or, if left to harden, they can be removed with a scraper or knife.



### Cleaning The Nozzle

As the expanding foam will be in use over the 2 days of the Xtend garden building assembly, it is best to keep the nozzle of your foam gun clean enough to prevent any blocking of the product when next coming to use it. Excess foam can be removed whilst still wet using 'Bond It Foam Cleaner' or 'Bond It Multi-wipes.' Once the expanding foam has cured, it can only be removed by scraper. Store and transport upright in cool, dry conditions between 5 and 25°C.



## Before You Start

Do not attempt assembly of your building until you have checked the '**component list**' at the back of this guide book to ensure all parts are present. You must notify our Technical Helpline of any missing or damaged components within 14 days of receipt of the building.

In the unlikely event of any problems, issues or for any questions, please contact our Technical Helpline on **0333 777 7089**. Before you call, please make a note of any parts that may be damaged or missing.

Please refer to your **fixtures and fittings box** for supplied screws, expanding foam and nails. Tools for erecting and preserving the building are not supplied as part of the purchase and are listed on page 6 for a guide.

Guarantees are limited to the replacement of incorrect or damaged materials. Your statutory rights are unaffected.

## Assembly Guide

Building your garden room is relatively straightforward for anyone with a good standard of DIY or building experience. In general, it does not require any special skills, but it will require a logical approach and will sometimes require some general carpentry. **If you have any doubts as to your ability, you should contact Forest Garden and arrange for a professional team to assemble the building for you.**

Be aware of any raised ground surrounding the site of the garden room as this may cause water to drain onto the slab base or under the Xtend building. **Building the base correctly is very important** – cutting corners on this part of the project will potentially make assembly difficult, and jeopardise the longevity of your garden room.

For more information on building your base, please refer to the **Base Preparation** section mentioned in this guide book.

**It is strongly recommended that you build your garden room in dry conditions for the best building experience and results.**

In addition to this written guide, we also have a supplementary 'how to' video guide which can be viewed at [forestgarden.co.uk](http://forestgarden.co.uk) if you would like any extra guidance during your step by step build.

**The step by step assembly instructions are partly generic.** The floor plans provided are specific to your Xtend garden building but most of the imagery is generic, as the build is relatively the same for all Xtend garden buildings. The main difference is the quantity of components provided.



1 Lay the bearers down and spread them out roughly ready to position the floor panels on top.



2 Place the first floor panel (D) on flush to the edge of the first bearer and halfway onto the second bearer. Place the black underside of the floor panel on top of the bearers as shown above.



3 Ensure the panel is flush to the edges of the first bearer. Ensure the floor panel on the bearers are level using a spirit level as a guide.



4 Pre-drill for every process before securing with screws. Pre-drill 5 holes along the edge of the first floor panel. Do not screw in the other side at the moment.



5 Using 125mm screws, screw through the floor panel into the floor bearer beneath. Repeat the process for the 4 other screws. Ensure each screw is countersunk.



6 Place the second floor panel (E) onto the middle bearers. Ensure the panel is positioned half way on both bearers.



Using a rubber mallet, knock the second panel into the first for a tight fit.



Knock on the front and back of the second panel to ensure it is flush on both edges to the first panel and floor bearers.



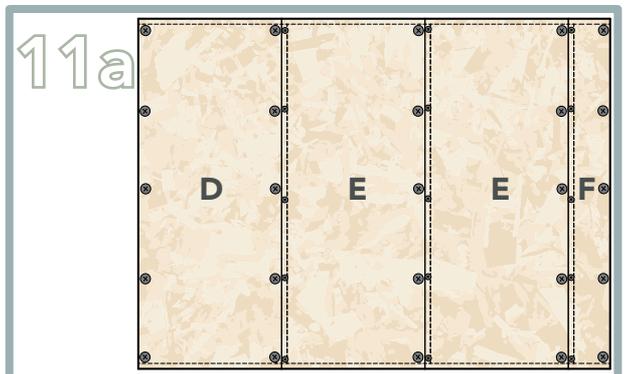
Using 4 x 35mm screws, pre-drill and screw where the adjoining panels intersect. This will secure the floor panels together. Repeat the same process for the third panel (E).



Place the fourth floor panel (F), knock into the third panel and ensure it sits flush on the final floor bearer. Repeat the process using 35mm screws between the third and fourth panels.



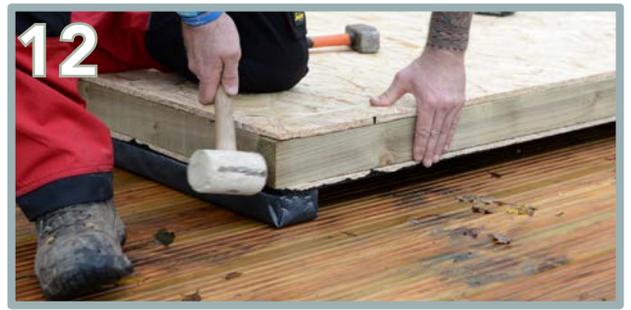
Once happy that all panels are in the correct position, further secure with 5 x 125mm screws along the outer edge of the fourth panel.



**Screw positions are shown in the diagram above.** The larger screw heads are 125mm and the smaller ones are 35mm. The fully constructed floor should now be fully secured and flush to the edges of all the floor bearers. Use a spirit level to ensure the floor is level before continuing with the build.



The components provided will be labelled according to the components list at the back of this guide book.



Insert and knock the floor capping (AN) into place using a rubber mallet. Ensure it is flush to all edges.



Pre-drill and use 4 x 125mm screws ensuring each screw goes into the bearer beneath. Screw 35mm screws between the 125mm screws. Repeat process for the other floor capping.



Position OSB floor sheets (AE) on top of the floor panels one at a time. Ensure they are flush to all edges and screw into the corners to keep secure.



Using 35mm screws, screw 3 across the top and 5 down the sides of each OSB sheet. Screw along the sides first.



Screw the central screws into place, resulting in 3 in a row. This will result in 15 x 35mm screws per OSB sheet.



Position the final OSB sheet (AD).



Some pieces may be oversized. If this is the case, saw off any excess once the sheets are screwed in place to create a flush finish.



Start to unwrap the DPC roll and choose a starting point on the base's outer face. Ensure it covers half of the bearers and staple into place.



Continue to wrap around the base. We suggest one person unwraps while the other follows behind stapling the DPC into place.



Once fully wrapped around the base, overlap the starting point and staple into place.



Using a Stanley knife, cut the DPC at the corner to create 2 pieces to easily fold onto the OSB sheets and staple into place.



Continue folding the overhang and corners of DPC onto the OSB sheets as you make your way around and staple into place.



The final result is shown above.



As part of your assembly pack, you will have been provided with an OSB offcut to use as an 11mm guide when positioning the floor plates.



Starting with the back Floor Plate (AP), ensure it is flush at each end and use the 11mm offcut to ensure an 11mm space from the base's back edge all the way along. Pre-drill and screw 4 x 125mm screws along the timber.



Repeat the process with the front Floor Plate (AP). Ensure the one end is flush to the side and 11mm from the front edge.



Pre-drill and use 4 x 125mm screws for the front Floor Plate (AP). Apply 2 x 125mm screws per end. Measure the width of your Front Panel (P) from side to side on the OSB sheet.



Use the measurement to mark onto the front floor plate, starting from the end of the timber. Repeat the process at the opposite end.



Cut and remove the central part of the front floor plate. This will remove the excess timber from your door opening. Your front panel will sit flush end to end of the front floor plate.

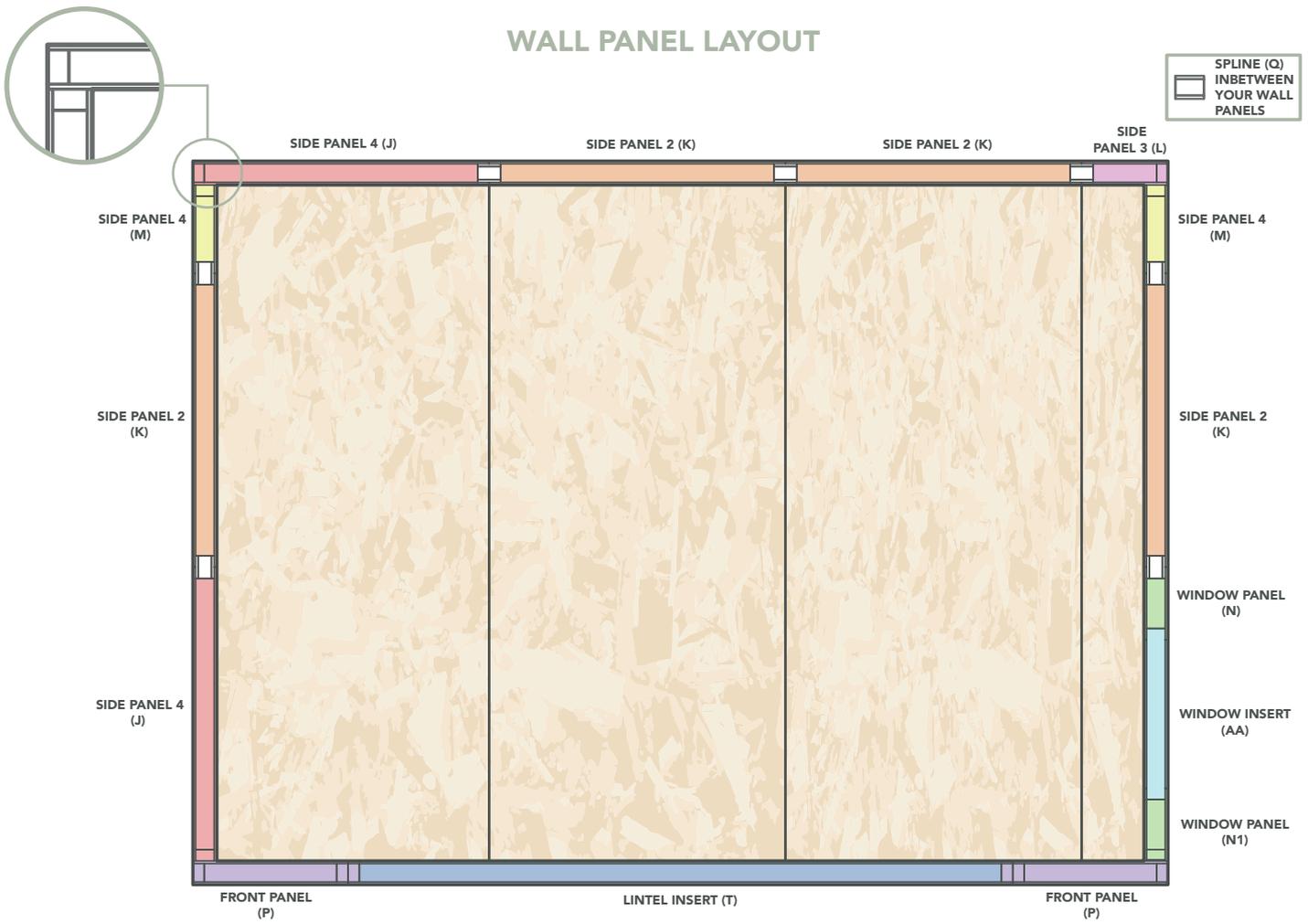


Your side Floor Plates (AN) will fit between your front and back plates. Ensure 11mm from the outer edge and 11mm at each end. Once happy with the position, pre-drill and screw into place using 4 x 125mm screws.



The final result is shown above.

## WALL PANEL LAYOUT



Next, start to build your walls. Each wall panel is labelled according to the layout shown above and the components list at the back of this guide.



Begin the build at the left back corner, starting with Side Panel 4 (J). Insert the expanding foam provided into the bottom groove.



Place onto the floor plate and the wall panel will sit flush to the edge.



In the left hand corner, the wall panel will be flush to the edge and the floor plate as shown above.



Working in the back left corner, add the expanding foam into the side groove of the Side Panel 4 (M) and butt it up against Side Panel 4 (J). Have one person holding onto the wall panel to prevent movement.



Pre-drill and, using the star drill bit provided in your fixing box, screw through the back into the side wall panel using 3 x 150mm screws (top, middle and bottom).



There will be smaller Spline Panels (Q) that will be in between the grooves of some panels. Add expanding foam into each groove of the spline panel and apply them according to the wall panel layout. Secure with 5 x 35mm screws.



Add expanding foam into the inner side groove and into the bottom groove of the second Back Panel (K). Slide onto the floor plate and knock into place. Repeat the process for the third Back Panel (K).



Repeat the same process on the last Back Panel (L) and knock into place.



Repeat the same process for the right hand corner (M). Add foam and knock into place. Ensure the panel is flush to all edges as mentioned and shown above.



Pre-drill and screw through the Back Panel (L) into Side Panel (M) using 3 x 150mm screws (top, middle and bottom). Continue on each side with Side Panel 2 (K).



Install the right hand side panels as shown above (N), adding the expanding foam into the bottom grooves. Place and knock into the other Side Panel (K).



Install the Window Panel (N1) as shown above, leaving the provided space for the window insert. This is labelled on the layout.



Install the Front Panel (P) and butt up against the front side wall panel installed in the previous step. Ensure all edges are flush.



Position the screw roughly 45mm from the outer edge. Pre-drill and screw through the front into the side wall panel using 3 x 150mm screws (top, middle and bottom).



Knock the Window Insert (AA) into the the space between Window Panel (N) and Window Panel (N1). Ensure the top is flush.



Use 35mm screws to secure the window insert into place by screwing from both outside and inside of each wall panel into the window insert. This will use a total of 8 x 35mm screws.



Install the last Side Panel 4 (J). Apply expanding foam into the bottom groove.



Slide and knock into place.



Install the other Front Panel (P). Pre-drill and screw through the front, into the side panel using 3 x 150mm screws (top, middle and bottom).



Insert the Lintel (T) and knock into place. Ensure it is flush to the top of the front panels.



Use 35mm screws to secure the lintel in place by screwing from both outside and inside of each wall panel into the lintel. This will use a total of 8 x 35mm screws.



Once all of the wall panels are up, begin to secure each wall panel to the floor plate underneath. Use 3 x 35mm screws per panel externally.



Repeat the process from the inside, using 3 x 35mm screws per panel once again.



Where spline panels have been used to join side panels, use 5 x 35mm screws to secure from top to bottom along the connection. Do not screw directly into the adjoining line. Repeat this process for every adjoining panel.



Starting with the front panels, apply expanding foam in the top groove, ready to add the wall plates.



Insert the Front Wall Plate (AP), knocking into place. Expect this to be tight fitting. Ensure it is flush to the top and ends.



Pre-drill and secure with 4 x 125mm screws. Repeat the same process for the Back Wall Plate (AP).



Apply expanding foam to the groove of one of the side panels.



Insert the Side Wall Plate (AN). Pre-drill and secure with 4 x 125mm screws. Repeat the process for the other side wall plate and the back wall plate.



Further secure each of the wall plates with 3 x 35mm screws externally and 3 x 35mm internally, through the side panels into the plate, between the 125mm screws.



Position the Furring (AC) and butt up against the front panel.



Use 2 x 125mm screws to secure the thicker end of the furring component.



Use 2 x 35mm screws to secure the thinner end of the furring component. Repeat this process for the other furring.



Lift up the first Roof Panel (X). Ensure at least 3 adults help carefully lift up the roof panels as they are heavy.



Use the spirit level to ensure the top OSB sheet of the roof panel is flush with the back edge of the wall panel. **Top Tip - Use the Canopy T&G Panel (BD) as a reference for the correct overhang size at the front.**



Use 4 x 150mm screws along the side edge.



Lift and position the second Roof Panel (Y).



Use expanding foam in the groove of the roof panel and knock into place. Ensure the roof is flush to the front and back of the first roof panel.



Pre-drill and screw 5 x 35mm screws, where the adjoining panels intersect. This will secure the roof panels together. Then secure the first roof panel's corners with 2 x 150mm screws.



Secure the second roof panel to the front and back panels. Use 2 x 150mm screws at the back and 2 x 150mm screws at the front. Repeat steps 71-73 for the third Roof Panel (Y).



Lift up the final Roof panel (Z) and apply expanding foam into the inner groove as shown above.



Knock further into place to allow the roof panel to be as flush as possible to the wall face.



Pre-drill and secure 5 x 35mm screws where the adjoining panels intersect.



Repeat the same process as the first roof panel using 4 x 150mm screws along the edge to fully secure the roof. Then secure the fourth roof panel's other side edge with 2 x 150mm screws at each corner.



If there is a 2-5mm overhang on the side, don't worry. This will not affect the rest of the build.



Use expanding foam in the groove of all roof panels.



Insert the Back Roof Panel Cap (AS). Use 4 x 125mm screws through the back roof panel cap and into the wall panel's. Use 3 x 35mm screws between the 125mm screws to fully secure.



Use expanding foam and knock the Front Roof Panel Cap (AS) into place. Ensure all faces are flush to the front and side edges.



Use 4 x 80mm screws into the front roof panel cap. Use 3 x 35mm screws between the 80mm screws to fully secure.



Begin to unwrap the breathable membrane. Position the membrane 45mm from the ground.



Starting with the bottom section, pull the membrane tightly and staple into place.



Then wrap the excess around the corner and staple the starting point into place.



Continue unwrapping the membrane, pulling tightly and stapling into place.



Once the starting point has been overlapped, cut off the excess and staple the end of the material into place.



Repeat the same process for the top half of the building. Ensure the starting point is flush to the top of the back wall panels.



Add additional staples to keep the membrane in place. Be careful not to staple into the door and window gaps.



There will be a slight gap at the front and on the sides due to the angle of the roof.



Using a Stanley knife, remove the excess from the door section, using the walls as a guide to ensure it is cut straight.



Repeat the same process to remove the excess from the window section.



Using the excess membrane, cover the front flush up to the roof.



Staple into place and remove the excess from the door section.



Use the excess membrane to cover the angle on the side panels.



Fold onto the roof, stapling into place.

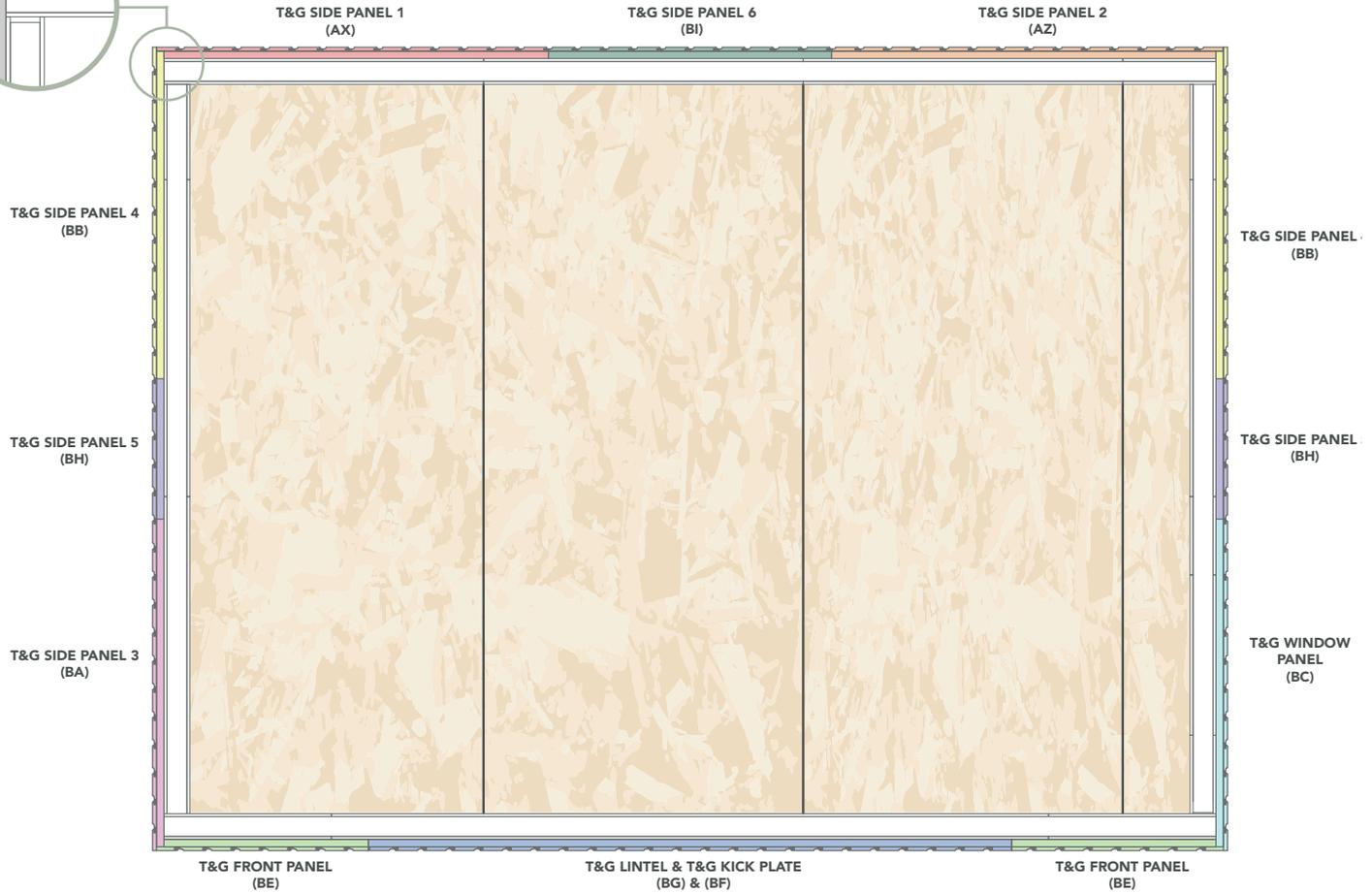
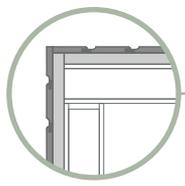


Remove the excess from each side of the roof overhang.



The final result is shown above. You do not need to add membrane to the canopy / the roof overhang.

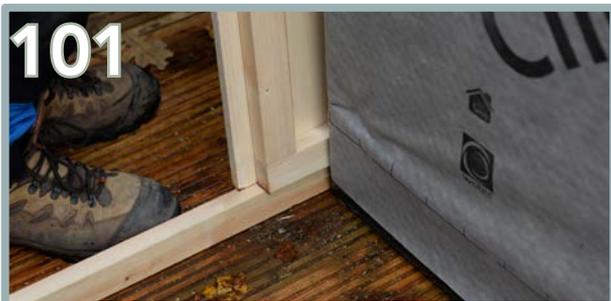
## T&G CLADDING LAYOUT



Begin applying the T&G Back Panel (AZ).



At each side, there will be a slight overhang of the T&G board. The batten's edge underneath, attached to the panel should be flush to the end. Use the 45 x 28mm batten as a guide to provide a 45mm space from the ground.



Repeat the same process for the second Back Panel (BI). Use a rubber mallet to softly knock the second back panel into the first, so the T&G Panels interlock. Repeat the same process for the (AX) T&G Panel.



Use 6 x 80mm screws to secure each cladded panel (3 screws down each side). Screw through the batten on the panel and into the wall behind. Leave the screws slightly out in case of adjustment.



Continue onto the side panels (BB). Knock the first panel in place and ensure it is butted up against the back panel overhang.



Use 6 x 80mm screws per panel. Ensure you use 3 x 80mm screws down each side of the cladded panel.



Ensure the cladded panels are 45mm off the ground. If you are using the batten as a guide, slightly lift up the secured panel to ensure it is carefully removed to prevent any damage.



Use a rubber mallet to softly knock the second Side Panel (BH) into the first, so the T&G panels interlock. Repeat the same process for the T&G Panel (BA).



Using 3 x 80mm screws, screw the rearmost side of the T&G Panel (BA) into place.



The batten and the T&G board will overhang at the front, as indicated on the layout shown above. Pre-drill ready for when you need to secure with 3 x 80mm screws into the front panel.



Repeat the same process on the opposite side (BB & BH). Start at the back and butt up against the back panel's T&G board. Screw into place.



Install the Window Opening Panel (BC) ensuring it is flush to all edges. If not aligned properly, this will cause issues during the window installation.



Install the Front T&G Panel (BE). Ensure it is butted up against the side panel and flush to the door section. Secure the panel with 6 x 80mm screws (3 screws down each side).



Use 3 x 80mm screws to secure the Window Opening Panel (BC) to the Front T&G Panel (BE).



Repeat the process for the other Front T&G Panel (BE).



Install the Lintel T&G Panel (BG). This will fit between the front panels. Use 6 x 80mm screws. Make sure to drill through the battens beneath.



Repeat the same process as the lintel for the Kick Plate T&G Panel (BF) that goes underneath the door opening.



Install the Canopy T&G Panels (BD) one at a time. Ensure they are flush to all edges. Use 6 x 80mm screws per panel.



Using 2 x 80mm screws, secure the side fascia. Ensure this is flush to the top and front, whilst butting up against the T&G side panel. Repeat this process for the other side.



Position the front fascia. Ensure it is flush to the top and to the outer faces of the side fascias. Use 3 x 80mm screws centrally across the fascia. Repeat this process for the other front fascia.



Unwrap the EPDM out onto the floor first. Then measure out on the roof to ensure an equal overhang around all edges.



Fold the EPDM back to half way across the roof - we recommend two people for this. Be careful when moving on and around the roof to prevent any possible injuries.



Pour the glue into a paint tray and use a roller for easier application.



Apply glue to half of the roof, making sure to reach all edges.



Roll the EPDM back on to the glue. Use a brush/ broom to create an even, flat finish. You need to act quickly once the glue has been applied.



Repeat on the opposite half. Fold the EPDM back up until the point where the glue ended on the previous application.



Apply glue to this side of the roof, making sure to reach all edges.



Finish with a final brush on the EPDM to produce a flat and even result.



Secure the Back Roof Battens to the Back T&G Panels (AX, BI & AZ). You will need to lift up the overhanging EPDM to do this. Ensure each batten's edge is flush to the top of the T&G panel. Secure with 3 x 80mm screws per batten.



To install the Angled Roof Battens, lift the EPDM and slot the matching batten's listed in the components list into place above each T&G Side Panel (BB, BH & BA).



Screw into place using 2 x 80mm screws. Ensure the batten is butted up to the T&G panel and wall panel behind.



Repeat the same process for the other batten's on top of the other T&G Side Panels (BB, BH & BC). Screw into place using 2 x 80mm screws. Repeat the process on the opposite side.



Fold the EPDM in a tucked position against the front and back of the side panels as shown above.



Slot the plastic trim on the top edge, flush to the back.



Use the pins provided with the plastic trims. Pin into the batten behind to secure in place.



The other plastic trims will need to be measured and cut using a hand saw to fit next to the fixed roof trim. Further detail will be shown throughout the application of the trims below.



Install the piece cut to size in Step 134. Ensure it is flush to the front edge and butts up against the plastic trim already pinned into place.



Use the clips provided to secure where the pieces join. Repeat the same process on the opposite side.



Measure and cut the plastic trims into 2 equal pieces. Ensure each end meets the side trims. Pin these into place onto the front fascias. Add the clip in the centre of the adjoining trims.



Before applying the corners onto the trims, you need to remove the plastic support. Use a Stanley knife to score an outline to weaken the support.



Simply break off the excess to produce the required gap as shown above.



Hook and position onto the corner. Pre-drill to provide a hole for the pin.



Using the pins provided, pin into place. Repeat on the opposite corner.



Once the plastic trims are complete around the roof, using a Stanley knife remove all of the EPDM excess. Use the plastic trims as a guide. Be careful not to cut the T&G panels behind.



143  
Remove the timber excess from the window section before inserting the window frame. Take out any screws in this section and cut with a saw, using the inner edge as a guide.



144  
Remove any packaging from the new frame and screw the sill into the bottom of the frame. Use 2 x 50mm screws and ensure not to penetrate the inner skin of the frame.



145  
Be sure to seal the ends of sill with the caps provided to prevent moisture from tracking along into the woodwork.



146  
Apply adhesive silicone to the base and carefully position the new frame into the aperture. Ensure to centralise it.



147  
Insert packers around all edges and intervals to level it and maintain the 5mm expansion gap. Ensure the back of the frame is in line with the OSB sheet inner face as shown above.



148  
Check that frame is both level and plumb, then drill fixing holes into the frame sides. Pre-drill with a 6.5mm drill bit.



149  
These should be drilled 150mm from the top and bottom corners and 300mm from the 150mm point at both sides. Use packers at the fixing points to avoid distortion to the frame.



150  
Fix the sides of the frame to the wall panels using the star head 112mm screws at the measurements marked out. Don't forget to fix the top and bottom of the frames as shown in step 166.



Attach the window handle with the screws provided. Remove the hole caps and drill the screws into the space provided. Then replace the hole caps.



Using a chisel, break off the excess ends of the packers to create a neat finish. Remove the beading around the edge, ready for the glazing to be inserted.



Insert packers with the adhesive silicone. The glass should be packed at diagonally opposing corners to hold the casement square, using the toe and heel process. (Process of placing packers within the inner frame of the door/window to brace the glass or panel).



Place the top pane into position, ensuring it is centralised and packed correctly, holding the pane square.



As the pane is positioned, the beading can be tapped securely back into place using a smaller rubber mallet. Be careful to not aim at the glass pane.



Repeat the same process for the bottom pane, ensuring it is centralised and packed properly using the toe and heel process.



The door ledge will be oversized by 100mm. You will need to measure and cut off the excess.



Apply the adhesive silicone in the door section. Be sure to seal the ends of sill and frame assembly to prevent moisture from tracking along the sill and into the wood work.



Place the ledge onto the silicone. Ensure it is level and the back edge meets the first edge of the back OSB sheet (the same positioning as the window).



Lift and angle the frame, then insert the ledge. Butt up against the wall panel.



Check the frame is both level and plumb, then drill fixing holes into the frame side.



These should be drilled 150mm from the top and bottom corners and 300mm from the 150mm points with the 112mm screws.



(Steps 163, 164, 178 and 179 are only for the 'Xtend Plus' doors and side window. These step will not apply to the standard option). Use 3 x 35mm screws to secure the metal capping.



Insert the window frame into the left hand side of the double doors. The metal cap will slot into place.



Drill 150mm from the top and bottom corners and 300mm from the 150mm points with the 112mm screws into the double doors and into the wall panel on the opposite side.



Further secure the window with 1 x 112mm screw into the top and 1 x 112mm into the bottom.



Remove the plastic strips from the bottom of the door frame. Keep hold of these pieces to reapply afterwards.



Drill 150mm from the both internal sides of the double doors. Use 112mm screws to screw into place at each side into the bottom of the frame as shown above.



Then screw 1 x 112mm screw into the centre.



Repeat the process for the top of the frame. Drill 150mm from the both internal sides of the double doors. Use 112mm screws to screw through the top of the frame as shown above.



Repeat the same process centrally. Screw 1 x 112mm screw in the centre.



Clip the plastic strips back into the door frame to hide the screws.



Remove the beading around the door, ready to insert the pane.



The glass should be packed using the toe and heel process. Toe and heeling works by supporting the double glazed unit with the packers.



Apply silicone and stick the packers at diagonal opposing corners. Place the pane into position, ensuring it is centralised and packed correctly, holding the pane square.



As the pane is positioned, the beading can be installed using a small rubber mallet and tapped securely back into place.



Repeat the same process for the other door and window panes, ensuring they are centralised and packed properly with the toe and heel process. Then attach the window handle inside (see Step 151).



Where the frames adjoin, clip the strip provided into the fixed metal capping. This will clip into the fixed metal capping. To further secure, you can also add glue to the strip.



Repeat the same process for the internal strip.



Apply expanding foam around the outer edge of the side window frame.



Repeat the application of the expanding foam around the front window and door frame.



The expanding foam will be tack free in about 20 minutes. It can be cut back after 12 hours and will be fully cured in 12-24 hours.

Need some extra help with the window and door sections? Access our 'how to' video at [forestgarden.co.uk](http://forestgarden.co.uk)



Remove all excess expanding foam around the window and door frames. Preferably, wait for the expanding foam to cure for easier removal.



If any of the 50 x 12mm door and window boards are slightly oversized, you will need to measure out your required length. Start with the top board.



Cut the 50 x 12mm boards to the required size.



Using 6 x 30mm nails, secure the top board into the lintel. Repeat the same process for trimming the sides.



Secure into place with 5 x 30mm nails. Repeat the process for the opposite side of the door frame. Then repeat the same application around the window frame.



You will need to fill in the holes of each screw in the T&G panels to create a flat finish. Further countersink the screws and enlarge the hole's by 10mm.



Insert the supplied wood plugs one at a time and hammer further into the hole.



Finish with slightly cutting down and/or just sanding off any excess showing to produce a seamless finish. Repeat this process for every screw hole in the T&G panels.



191 Position the top plastic 'L' strip across the door. Pre-drill the face underneath and fix first.



192 Using the pins provided with the trims, hammer 2 in each corner and 1 in the middle.



193 Pre-drill across the top and repeat the same process. Use 5 pins across the front of the plastic trim.



194 The side plastic trims for the door and window will need to be trimmed to fit. Mark out your required length and cut.



195 Use 5 pins down the front and 3 pins in the internal face of the side strip for the door frame. Repeat the same process for the opposite side.



196 The same process applies for the window frame. Pre-drill and use 2 x pins on the front edge and 3 x pins underneath.



197 Pre-drill and use 5 pins down the front and 3 pins in the internal face of the side strip for the window frame. Repeat for the opposite side.



198 Add strips to each of the corners using 4 pins for each corner strip. The two back corners are shorter. Trim the strips if necessary.



**199**  
Begin at the back and position the first 45 x 28mm batten flush to the top. This will be the correct length to fit in the space end to end. Use 5 x 80mm screws along the batten.



**200**  
Repeat the process at the bottom of the wall, ensuring the second batten is flush with the floor and end to end. Use 5 x 80mm screws along the batten at equal spaces.



**201**  
Measure and mark out even spaces to position the two middle battens.



**202**  
Use 5 x 80mm screws to secure equally across the third batten in place.



**203**  
Repeat the same process to measure and mark out the position for the fourth back batten.



**204**  
Using 5 x 80mm screws to secure into place.



**205**  
Secure one batten above the door opening, flush to the edge opening. Secure the top batten flush to the ceiling. Use 5 x 80mm screws per batten.



**206**  
Secure a 45x28x1960mm batten to each side of the door opening with 4 x 80mm screws. Then secure 2 more battens, 1 in each of the front corners, using 4 x 80mm screws per batten.



Using 4 x 80mm screws, secure a batten between the two added in Step 206. Repeat on the other side of the door.



Secure four 45 x 28mm battens onto the left hand wall in line with and at the same height as the four back wall battens. These should be flush end to end.



Use 5 x 80mm screws for each batten. The battens on the left hand side will not be aligned to the front batten positions.



On the right-hand wall, secure a batten at the top of the wall, in line with the top back wall batten, using 5 x 80mm screws. Secure a second batten along the wall so it is flush with the top of the window frame. Finish framing the window by securing a 45x25x1960mm batten on either side of the window using 4 x 80mm screws for each batten.



Secure the three shorter 45x28mm battens between the window and back wall at the same height as the back wall battens. These will be flush end to end.



Use 4 x 80mm screws for each of the three smaller battens.



To install the beaded wall panels, start at the back left-hand corner. Ensure the rounded edge of the panel is against the left-hand side. Use 4 x 50mm screws on each side and 2 x 50mm screws into the panel centre into the middle battens.



Butt the rounded edge of the next back panel up against the chamfered edge of the previous panel. Secure into place using 10 x 50mm screws. Repeat this process across the back wall.



Move onto the front beaded boards. There will be two 'L' shaped pieces on either side of the door. Use 10 x 50mm screws to secure. Use 6 x 50mm screws on the top half and 4 x 50mm screws on the bottom half. Use 6 x 50mm screws for the lintel board in the middle between the two front panels.



On the side panels, work from the front to the back. Ensure the window board is flush to the window edges. Then secure the next side piece. This is already trimmed for the provided space.



Use 10 x 50mm screws for the window panel and the trimmed side panel. Repeat the same process on the opposite side (except the one panel will not have a window opening). Both of these will be sized fit into place.



Use 4 x 50mm screws on each side and 2 x 50mm screws into the panel centre into the middle battens for both panels.



Install the 45x45mm roof battens. Start at the front. Ensure the first batten is flush end to end and against the front beaded panels. Secure with 5 x 80mm screws. Repeat the process to install a roof batten against the back wall.



As the roof has smaller MDF roof panels at the front, measure out and ensure that the smaller MDF roof panel at the front roof MDF panels will fit half way onto the second batten (shown in step 219) from front to back. If unsure, use the below steps as a guide.



Measure and mark out equal spacing for the rest of the central battens. Position and secure with 5 x 80mm screws per roof batten.



Mark out a guide line underneath all the battens at both ends. This will ensure that you drill into the battens when securing the roof panels.



Start from the left side. Ensure the rounded edge is butted up against the side and back panels. You will need at least one person to hold the panel up whilst the other screws it into place.



Use 4 x 50mm screws on each side and 2 x 50mm screws in the centre of the panel.



Repeat the same process. Ensure the rounded edge is butted up against the chamfered edge on the first panel. Use 4 x 50mm screws on each side and 2 x 50mm screws in the centre of the panel.



Apply the other roof panels using the same process. Use 10 x 50mm screws to secure.



Apply the smaller MDF roof panels at the front. Work from left to right and ensure they line up with the secured roof panels. Secure with 6 x 50mm screws per panel.



The final result is shown above.



Start to apply the internal framing for the door. This is the same process as the external framing (see Step 184). Start at the top, ensuring the board is flush to the edge.



Nail into place using 6 x 30mm nails.



Install the internal sides on either side of the door. Trim to fit if necessary. Use 5 x 60mm nails for each board to secure.



Install the 45mm overlapping framing on top of the beaded panel. Ensure this is flush to the inner framing. Use 5 x 30mm nails to secure. Repeat this process on the opposite side.



The top frame will sit on top of the side boards. Ensure both ends are flush to the side framing edge. Trim if necessary.



Fix into place using 6 x 30mm nails.



Repeat the same process for the window framing. Use 4 x 30mm nails to secure the top framing.



Apply the side framing, using 5 x 30mm nails per board.



Install the 45mm overlapping framing on top of the beaded panel. Ensure it is flush around all edges and trim if necessary.



Use 5 x 30mm nails per side 45mm board. Finish with the top board using 4 x 30mm nails to secure.



239  
Secure the small trims at the front and back first. Ensure the trims are flush end to end and they are in contact with the roof as much as possible. Use 5 x 30mm nails.



240  
Secure the roof trims on each side, between the front and back. Ensure these are flush end to end and follow the angle of the roof from front to back.



241  
Use 5 x 30mm nails for the roof trims on each side. The final result at the back.



242  
The final result of the windows and door.



243  
You will be provided a silicone seal for the windows and doors. The colour provided will match your windows and doors.



244  
Start at the top and trail down to the ledge at the bottom. Keep the amount of silicone consistent as you trail down.



245  
Repeat the same process on the opposite side.



246  
Finish with trailing across the top. Repeat the same process around the window frame.

After your Xtend Garden Building has been assembled, you will need to apply a preservative. Please refer to the Xtend Garden Building Aftercare Information.



## Xtend Garden Building Aftercare

After your Xtend garden building has been built, steps are required to ensure the building is rot-proof, weatherproof and watertight. Carrying out these steps will ensure your Xtend garden building is protected and durable.

Detailed below are the steps required and the best way to accomplish them.

1. Protecting against rot.
2. Weatherproofing.
3. Adding interior finishes (and electrics).

### 1. Protecting Against Rot

Your Xtend garden building comes untreated (the bearers are wrapped in DPC as they come in direct contact with the ground); therefore, the correct treatment for your building should be applied as soon as your Xtend is built.

For the exterior treatment, we recommend the use of a solvent based preservative such as Barrattine Preserver as it is slower drying than water based alternatives, ensuring better penetration of the surface layers of the timber.

Start the treatment process by **applying a minimum of two coats** of preservative to the exterior of your garden building. **Ensure you treat the ends of the T&G panels** to prevent any moisture being absorbed. Preservative contains substances that will prevent the build up of fungi, mildew, and wood boring insects. Some of these fungi are potentially very harmful to your Xtend garden building, causing it to rot.

Though not necessary to prevent rot, the walls and roof are primed so you can paint the interior your desired interior paint once the building is constructed. Additionally, you can add laminate or other floor covering.

### 2. Weatherproofing Your Garden Room

Your Xtend garden building needs to be protected from moisture and, to a lesser extent, the sun's UV rays.

Timber will constantly try to reach a moisture content equilibrium with its surrounding environment causing the cells of the wood to continually expand and contract. In addition, any untreated timber exposed to rain, or water in general, can expand rapidly. This constant movement leads to issues such as twisting, warping, splitting, bowing, cupping, and many more potential problems. In fact, the largest percentage of timber related issues are directly linked to movement.

UV rays break down lignin in the surface cells of timber causing it to turn grey. This doesn't harm the timber in any way but it does look unsightly.

Therefore, a good quality exterior timber treatment must be applied the exterior of the garden room to protect it from the extremes of our climate.

The two most common types of high quality exterior wood finish are penetrating finish and film finish.

Penetrating finishes are predominantly oil or wax based and they work by soaking into the surface layers of timber to provide a tough, durable, weather resistant finish. These finishes are extremely thin in viscosity in order to penetrate the microscopic pores of timber. The more coats applied, the further the finish penetrates the timber and the better the protection against UV rays, due to the build up of pigment (colour).

Penetrating finishes are extremely easy to apply and maintain. When the finished surface starts to look tired and worn, it is simply a case of reapplying a fresh coat with no need to sand, strip back or remove the old finish. Penetrating finishes are forgiving of patch repairs; localised areas of wear are, therefore, easy to repair and blend with the surrounding areas.

Film finishes provide a protective film layer upon the surface of the timber and each coat applied increases the thickness of the film layer. The resins are polymer based and are usually alkyds or acrylic which bond together during the drying process to form the film. These types of finishes are constructed in such a way that the top coat will start to deteriorate with the coat losing its colour and sheen when maintenance is required.

Preparation is fundamental before applying a film finish. A primer coat has to be applied to provide a key for the film finish to adhere to. Without a primer coat, film finishes have a tendency to crack during timber movement. This leaves the exposed timber vulnerable and, as more water gets under the film, it can then peel leaving the timber further exposed. In the event of cracking and peeling, the entire finish has to be removed using a heat gun and scraper.

Recently, a third finish has entered the market and is increasing in popularity. This is a penetrating/ film finish hybrid. It offers all the advantages of both types of finish and provides superior timber protection. It doesn't crack or peel and is easy to apply and maintain.

A suitable exterior timber finish must be applied to the exterior of your Xtend garden building in order to validate your guarantee. Always read and follow manufacturer's usage and application guidelines. We recommend the following exterior finishes:

- Sikkens Cetol HLS Plus
- Restol Wood Oil
- Timmersol ETS Double Protectant
- Osmo Country Colour
- Osmo Natural Oil Woodstain



These finishes have been proven to stabilise the movement of timber associated with garden rooms. The majority of issues which arise are a direct result of an inferior finish being applied to the garden room. As such, in the rare event of a problem, you will be asked to **provide photographic evidence of your receipt** of purchase for any of the products listed above.

All treatment should be carried out once the Xtend has been constructed. You do not need to worry about treating the underside of your floor panels. These are already pre-covered in tar as they are in direct contact with the ground. The roof will be covered in a EPDM rubber material which will not split or crack in the different weather conditions and will keep your Xtend garden building roof completely waterproof all year round.

The pre-covered tar of the underside of the floor panels will protect your building from rising damp and prevent damp from penetrating the panels.

**A suitable interior timber finish can be applied to the interior untreated battens and the window and door framing, if you desire. Always read and follow manufacturer's usage and application guidelines. We recommend the following interior finishes:**

- Osmo Polyx®-Oil Original
- Osmo Uviwax® UV-Protection

**Do not use a solvent based cleaner when cleaning the plastic of the window and door frames.**

## 3. Adding Interior Finishes (and Electrics)

Once you have completed the exterior treatment, you can begin to adapt the interior to suit you and your working environment. Once constructed, the Xtend interior is as follows: walls and roof with a beaded profile and attractive olive-green finish; unpainted natural timber roof trims and window frames; and an OSB-topped floor. It is completely up to you in which order you choose to apply your internal finishes and which materials you intend to use. Our recommendations are listed below as a guide:

### Electrics

Before starting any of your decorating, we recommend that you install any lighting and electrics that you want in your building. We have supplied screws for installing your beaded panels. These allow ease of access to any wall or roof lighting that you will need to possibly fix, adjust or change in the future. The 45 x 45mm battens provided for your roof create the space for recessed downlights if desired. Although the roof trims are nailed into place, extra nails are supplied in case you need to remove the panels to access any electrics and reapply the roof trims. **Always use a fully certified electrician to install any electrics.**

### Laminate / Wood Flooring

A simple underlayment of foam sheeting or breathable membrane is usually sufficient as a base for laminate flooring. In the unlikely event of damage or unevenness of the floor from the build process, you will need to lay down a rigid underlayment of thin plywood before applying the membrane and laminate flooring. Providing underlayment for laminate flooring is essential for stability, support, additional insulation and an overall sturdy floor.

For wood flooring, use a spirit level to ensure that your subfloor is flat and level. If it is not, you will need to either line your subfloor with plywood (for a wooden subfloor), or use a self-levelling compound (for a concrete subfloor). Install your wooden flooring, using any floor instructions you have been provided. When fitting any type of wooden flooring, you must leave an expansion gap at least 10mm around the edge of the room.

### Floor Trim

The type and size of floor trim is entirely up to you. You can purchase any simple floor trims from many DIY stores, such as B&Q, Wickes and Screwfix. When applying your floor trim, ensure that the ends are at 45-degree angles to meet up at each corner. This can be achieved with a mitre or hand saw. Fix the trims around your edges with a construction adhesive, such as Unibond, No Nonsense or Polyurethane Wood Glue. These can be found in the same DIY stores along with your floor trim of choice.

### Decorators Caulk

As part of your final preparation, it is essential to use a flexible filler in the gaps around the door and window frames; along floor trims and skirting boards; and along roof and wall panels to provide a robust seal. Apply the filler, preferably with a gun for ease of use and to allow quick drying prior to painting. When you purchase decorator's caulk from the DIY store, ensure the brand allows for the caulk to be painted over; this will make any interior painting easier and provide a better finish.

### Painting

**The beaded wall and roof panels are already primed so do not require treatment before painting.** Ensure you fill any gaps beforehand and protect any areas you do not want painted. Additionally, you can fill each screw hole and sand down before painting for a smooth finish. Preferably, apply paint with a roller and paint tray for a smooth application and to avoid brush marks. **Always follow manufacturer's guidelines.**



# Xtend Garden Building Components List

Use this checklist to ensure you have all the required parts for the build. Refer to the part code, if you need to order a replacement.

The components provided will be heavy. Please lift with caution and with a minimum of 2 people.

4.0x3.0M Xtend Garden Building (Xtend4.0)			
Part Code	Description	Qty	Checklist
<b>Base Kit</b>			
70452948	Floor Bearer (Wrapped in DPC) 70x45x2948mm	5	
SIPS43FL1	Floor Panel 1243x2948mm (D)	1	
SIPS43FL2	Floor Panel 1243x2948mm (E)	2	
SIPS43FL3	Floor Panel 349x2948mm (F)	1	
75463940	Floor Panel Caps, Front & Back Floor/Wall Plates 75x46x3940mm (AP)	6	
OSB2948119711	OSB Floor Sheet 2948x1197x11mm (AE)	2	
OSB2948034911	OSB Floor Sheet 2948x349x11mm (AF)	1	
DPCM15.0	Damp Proof Course Membrane 15Sq Metre (Applied to base)	1	
75462754	Side Floor/Wall Plates 75x46x2754mm (AN)	4	
SIPS325SP4	Side Panel 1197x2109mm (J)	1	
SIPS43SP2	Side Panel 1220x2109mm (K)	4	
SIPS43SP3	Side Panel 303x2109mm (L)	1	
SIPS43SP4	Side Panel 337x2109mm (M)	2	
SJS2017	SIPS Joining Spline 92x2017mm (Q)	7	
SIPSWP	Window Panel 296x2109mm (N)	1	
SIPSWP1	Window Panel End 296x2109mm (N1)	1	
SIPSWINTIN	Window Insert 697x108mm (AA)	1	
SIPS43FRP	Front Panel 765x2190mm (P)	2	
SIPS43LINTEL	Lintel Insert 2686x230mm (T)	1	
97812802A12	Angled Furring 97x81x2802mm (AC)	2	
SIPS43RF1	Roof Panel 1197x3331mm (X)	1	
SIPS43RF2	Roof Panel 1243x3331mm (Y)	2	
SIPS43RF3	Roof Panel 493x3331mm (Z)	1	
100463940	Roof Panel Cap 100x46x3940mm (AS)	2	
DPM16.0	Damp Proof Membrane 16Sq Metre (Applied to finished shell)	1	
<b>T&amp;G Panels &amp; External Components</b>			
SIPS325TGSP1	T&G Side Panel 1468x2332mm (AX)	1	
SIPS325TGSP2	T&G Side Panel 1482x2332mm (AZ)	1	
SIPS325TGSP3	T&G Side Panel 1252x2381mm (BA)	1	
SIPS325TGSP4	T&G Side Panel 1266x2332mm (BB)	2	
SIPS43TGSP5	T&G Side Panel 544x2370mm (BH)	2	
SIPS43TGSP6	T&G Side Panel 1074x2332mm (BI)	1	
SIPS325TGWP	T&G Window Panel 1252x2381mm (BC)	1	
SIPS43TGFP	T&G Front Panel 793x2298mm (BE)	2	
SIPS43TGLINTEL	T&G Lintel 230x2410mm (BG)	1	
SIPS43TGKICK	T&G Kick Plate 108x2410mm (BF)	1	
SIPS43TGCAN	T&G Canopy 340x1970mm (BD)	2	
43FASCIA2014	Fascia 170x44x2014mm	2	
25FASCIA343	Angled Fascias 170x44x343mm	2	
SIPS43ROOFKIT	EPDM Rubber Roofing, Glue & Plastic Roof Trims	1	
45452000PPT	Back Roof Batten 45x45x2000mm (Guttering)	2	
44411250RFP	Side Back Angled Roof Batten 44x41x1250mm (Above T&G Panel BB)	2	
44180530RFP	Side Middle Angled Roof Batten 44x18x530mm (Above T&G Panel BH)	2	
44431253RFP	Side Front Angled Roof Batten 44x43x1253mm (Above T&G Panel BA/ BC)	2	
50122410P	Strip - Door Framing 50x12x2010mm	1	
50120605P	Strip - Window Framing 50x12x605mm	1	
50121948P	Strip - Door & Window Framing 50x12x1948mm	4	
SIPS43TRIM	Grey Angled L-Plastic Trims for Corners, Door & Window Frames (Including Poly Pins)	1	
<b>MDF Beaded Panels &amp; Internal Components</b>			
45283746P	Internal Back/Front Battens 45x28x3746mm	6	
45282698P	Internal Side Battens 45x28x2698mm	6	
45281960P	Internal Vertical Battens 45x28x1960mm	9	
45281780P	Internal Side Battens (Window Side) 45x28x1780mm	3	
BMDFBKP1	Beaded MDF Back Panel 1220x2110mm	2	
43BMDFBKP2	Beaded MDF Back Panel Trimmed (RH) 625x2110mm	1	
43BMDFBKP3	Beaded MDF Back Panel Trimmed (LH) 625x2110mm	1	
43BMDFFP1	Beaded MDF Front Panel Trimmed 1100x2190mm	1	
43BMDFFP2	Beaded MDF Front Panel Trimmed 1220x2190mm	1	
43BMDFFP3	Beaded MDF Front Panel Trimmed 150x2190mm	1	
BMDFLINP	Beaded MDF Lintel Panel 1220x230mm	1	
BMDFWINSP1	Beaded MDF Window Panel 1220x2138mm	1	
43BMDFSP2	Beaded MDF Side Panel (Both Sides) 1220x2115mm	2	
BMDFSP3	Beaded MDF Side Panel (Plain Side) 1220x2138mm	1	
43BMDFSP4	Beaded MDF Side Panel Trimmed (Both Sides) 240x2115mm	2	
45453672P	Internal Roof Battens 45x45x3672mm	5	
43BMDFRFP1	Beaded MDF Roof Panel 1220x2440mm	2	
43BMDFRFP2	Beaded MDF Roof Panel (LH) Trimmed 616x2440mm	1	
43BMDFRFP3	Beaded MDF Roof Panel (RH) Trimmed 616x2440mm	1	
43BMDFRFP4	Beaded MDF Roof Panel 1220x283mm	2	
43BMDFRFP5	Beaded MDF Roof Panel (LH) Trimmed 616x283mm	1	
43BMDFRFP6	Beaded MDF Roof Panel (RH) Trimmed 616x283mm	1	
45122410P	Internal Strip - Door Framing 45x12x2410mm	1	
45120605P	Internal Strip - Window Framing 45x12x605mm	1	
45121948P	Internal Strip - Door & Window Side Framing 45x12x1948mm	8	
45122476P	Internal Strip - Door Framing 45x12x2476mm	1	
45120671P	Internal Strip - Window Framing 45x12x671mm	1	
25123672P	Interior Finishing Roof Trim - Front & Back 25x12x3672mm	2	
25122658P	Interior Finishing Roof Trim - Sides 25x12x2658mm	2	