

ALUKAP®-XR

Superior Roof Glazing System Installation Guide



Your Alukap®-XR System

Whether you are planning your next project using Alukap®-XR, or have just purchased your Alukap®-XR system, this Installation Guide provides the information you may require to make the installation of your Alukap®-XR system straightforward. The system is inherently intuitive, however these guidelines will provide an additional layer of support, no matter how complex your project is.

We Are Here To Support You

We understand that even with comprehensive installation guidelines, there can sometimes be a question that you can't find the answer to, so we're here to help you all the way. Visit www.clearambershop.com and get in contact with our teams via live chat, phone or email, who will be on hand to assist with any queries you may have.

Index:

Part 1 : Alukap®-XR Bar Parts

<https://clearambershop.com/collections/alukap-xr-glazing-bar-system>

| | |
|---|---|
| Alukap®-XR : Bar Parts | 3 |
| Alukap®-XR : Glazing and Bar Installation Guide | 4 |

Part 2 : Alukap®-XR Additional Parts

| | |
|---|----|
| Alukap®-XR : Additional Parts | 8 |
| Alukap®-XR : Hip Bar | 9 |
| Alukap®-XR : Roof Lantern Radius End Caps | 9 |
| Alukap®-XR : Ridge Bar | 10 |
| Alukap®-XR : Valley Bar | 13 |
| Alukap®-XR : Horizontal Glazing Bar | 13 |

IMPORTANT :

With all aluminium products it is important to always use STAINLESS STEEL FIXINGS.



Part 1 : Alukap®-XR Bar Parts

Below is a list of the main types of Alukap®-XR profiles available and the items that can be supplied with each profile, most of which you will need for your project, depending on its design.

| | | | | |
|--|---|--|--|--|
| Alukap®-XR 45mm Glazing Bar | Alukap®-XR 60mm Wall Bar | Alukap®-XR 60mm Glazing Bar | Alukap®-XR 60mm Gable Bar | Alukap® Glazing Bar End Cap (One end cap and screw are included per profile bar set) |
|--|---|--|--|--|

Rafter gasket options available for each bar type:

| | | | |
|-------------------------------|--|-------------------------------|--|
| 45mm Rafter Gasket | 45mm Slot-Fit Rafter Gasket | 55mm Rafter Gasket | 55mm Slot-Fit Rafter Gasket |
|-------------------------------|--|-------------------------------|--|

**Alukap®-XR End
Stop Bar**
 (Available in: 6.4mm,
10mm, 16mm, 25mm,
28mm and 35mm)

Glazing Sheets and Accessories

Axiome® 16mm Multiwall Polycarbonate Sheet
 (also available in 4mm, 6mm, 10mm, 25mm and 35mm)

**Anti-Dust
Breather Tape**

**Securbond®
Flashing Tape**

Axgard® Solid Glazing Sheets
 (also in 4mm, 5mm, 6mm, 8mm, 10mm and 12mm)

*Optional item

**Timber Rafters
and Battens**
 (Required but
not supplied)

**Securbond® Silicone
LMN Sealant**

Glass / Glass Units

**Alukap®-XR Top
Wall Flashing**
 (Foam gasket included)

Tools Required

Wear protective gloves, glasses
and ear protectors when required.

Tape measure and fine toothed
bladed chop saw

Cordless screwdriver/drill, Phillips headed screwdriver, soft
rubber mallet, a straight edge tool and Securbond® Sealant plus
a sealant gun.

Alukap®-XR : Glazing and Bars Installation Guide

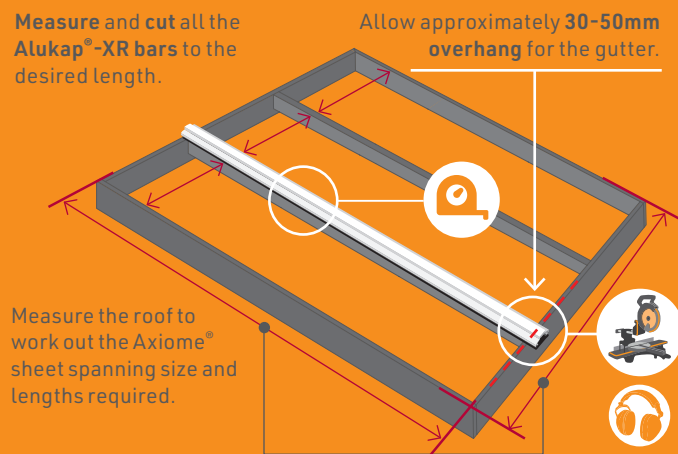
1 Planning Stage : Measure the Roof, Glazing Bars and Axiome® glazing sheets required.

IMPORTANT:

- Wear protective clothing.
- Refer to: Axiome® Technical Guide - Spanning Guide - Page 7
- Refer to: Alukap®-XR Technical Guide - Glazing Deductions - Page 10

Measure and cut all the Alukap®-XR bars to the desired length.

Allow approximately 30-50mm overhang for the gutter.



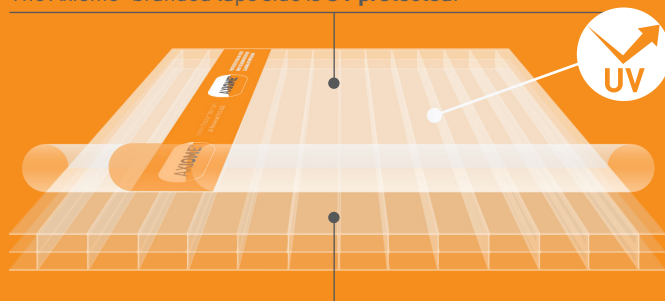
Cut lengths of the 45/55mm Rafter Gaskets to the same length as the Alukap®-XR base bars (one for per bar).

Cut two lengths of the thin glazing bar gasket to the same length as the Alukap®-XR base bars.

2 Prepare the Axiome® Glazing Sheets before installation

IMPORTANT – Store the Axiome® sheets in a clean, dry area to prevent moisture getting into the flutes.

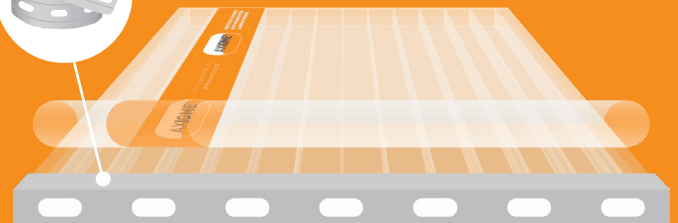
There is a **protective film** on both sides of the Axiome® sheet. The Axiome® branded tape side is **UV protected**.



Ensure that you are working in a clean dry area, pull the protective film back approximately 100mm from the open edge on both sides, taking care not to scratch the surface.

3 Apply the Anti-Dust Breather Tape to the Axiome® sheets

IMPORTANT – All adhesives suffer reduced initial bonding strength in cold conditions – avoid applying tape below 5°C.

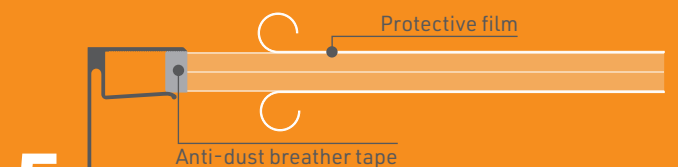


Stick the Axiome® Anti-Dust Breather Tape appropriate for the glazing sheet depth onto the **top surface** of the glazing sheet in a straight line from one side to the other, allowing enough to wrap around and bond to the underside. If it is necessary to join the tape mid-panel, **ensure that there is a minimum 25mm overlap**.

4 Apply the Alukap®-XR End Stop Bar to the glazing sheets

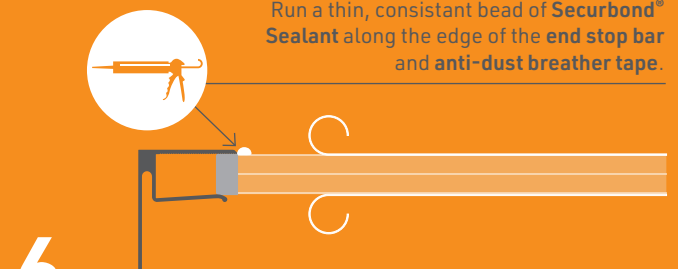
The Alukap®-XR End Stop Bar seals the glazing sheet depth onto the **top surface** of the glazing sheet in a straight line from one side to the other, allowing enough to wrap around and bond to the underside. If it is necessary to join the tape mid-panel, **ensure that there is a minimum 25mm overlap**.

Cut the End Stop Bars to the width of each Axiome® sheet, and **push-fit partway ONLY** so that the **open end** just covers the glazing sheet by about 10-15mm.



5 Apply the Securbond® Sealant

Run a thin, constant bead of Securbond® Sealant along the edge of the end stop bar and anti-dust breather tape.



6 Final stage, fit the Alukap®-XR End Stop Bar

PUSH the Alukap®-XR End Stop bar **FULLY** into place, so that the leading edge slides over the bead of Securbond® Sealant, creating a seal that eliminates capillary action.

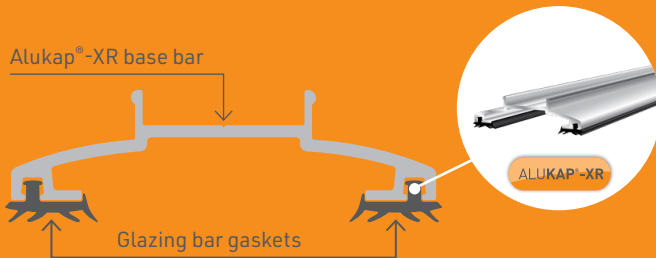


Video : How 2 Cut Axiome Polycarbonate Roofing Sheets

Video : How 2 Tape Polycarbonate Roofing Sheets

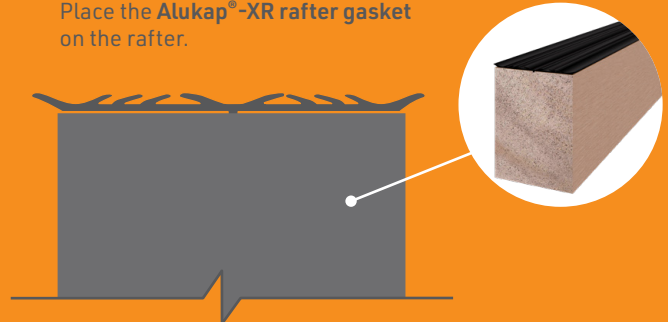
7 Fit the **bar gaskets** to the Alukap®-XR base bars

Carefully **insert** the thin glazing **bar gaskets** into the small grooves either side of the base of the bar **ensuring that the gasket matches the contours of the Alukap®-XR base bar**.



8 Install the **rafter gaskets** onto the rafters

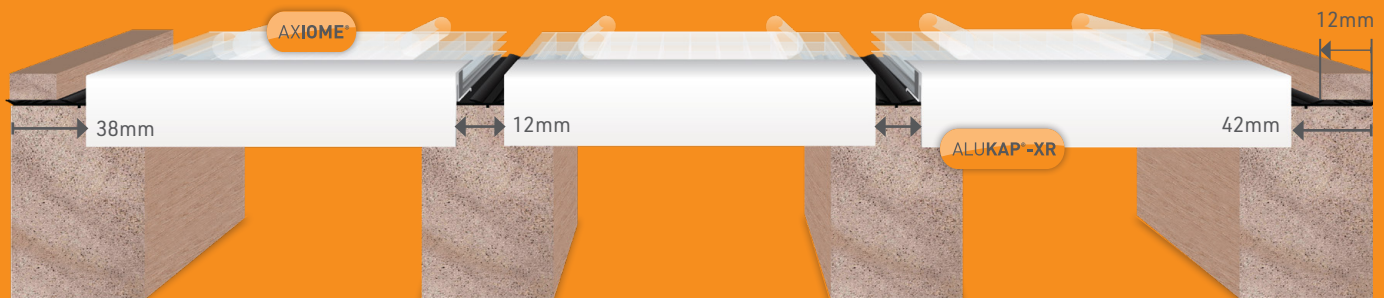
Place the **Alukap®-XR rafter gasket** on the rafter.



[Video : How 2 Install Glazing Bars](#)

9 Position the **prepared glazing sheets** onto the rafters

Place the glazing sheets on the rafters, leaving sufficient space in between the panels for the fixing screws and thermal expansion appropriate to the chosen glazing material.

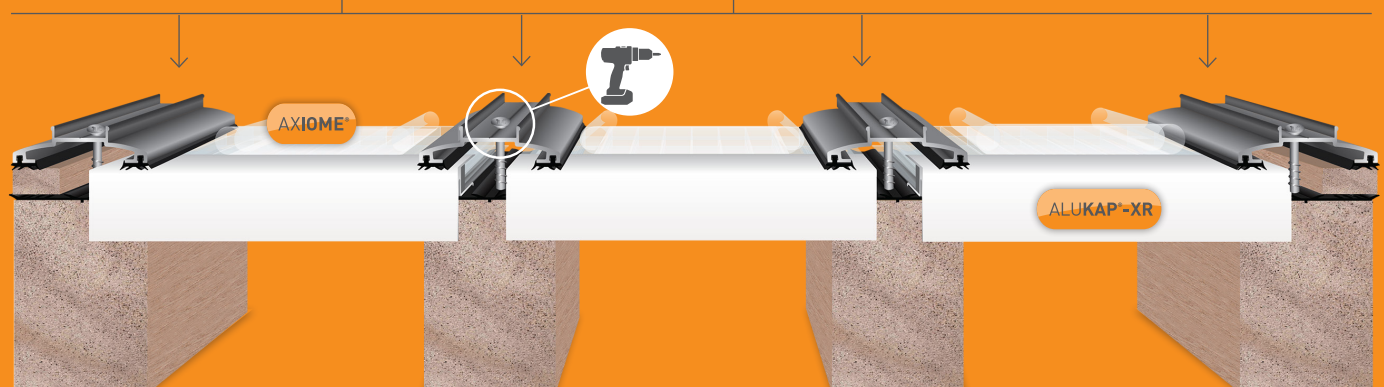


NOTE – Alukap®-XR Gable and Wall Bars only

- Polycarbonate glazing sheets can be **extended right across the rafter under the outermost bar gasket**. Or, you can add a timber packers under the outer edge gasket.
- Where **glass** is chosen, you **WILL** require a **timber packer** under the outer edge gasket. The battens width is (12mm) and height (x) equates to the glazing thickness plus 2mm. The gasket should run under the timber packers.

10 Fit the **Alukap®-XR base bars**

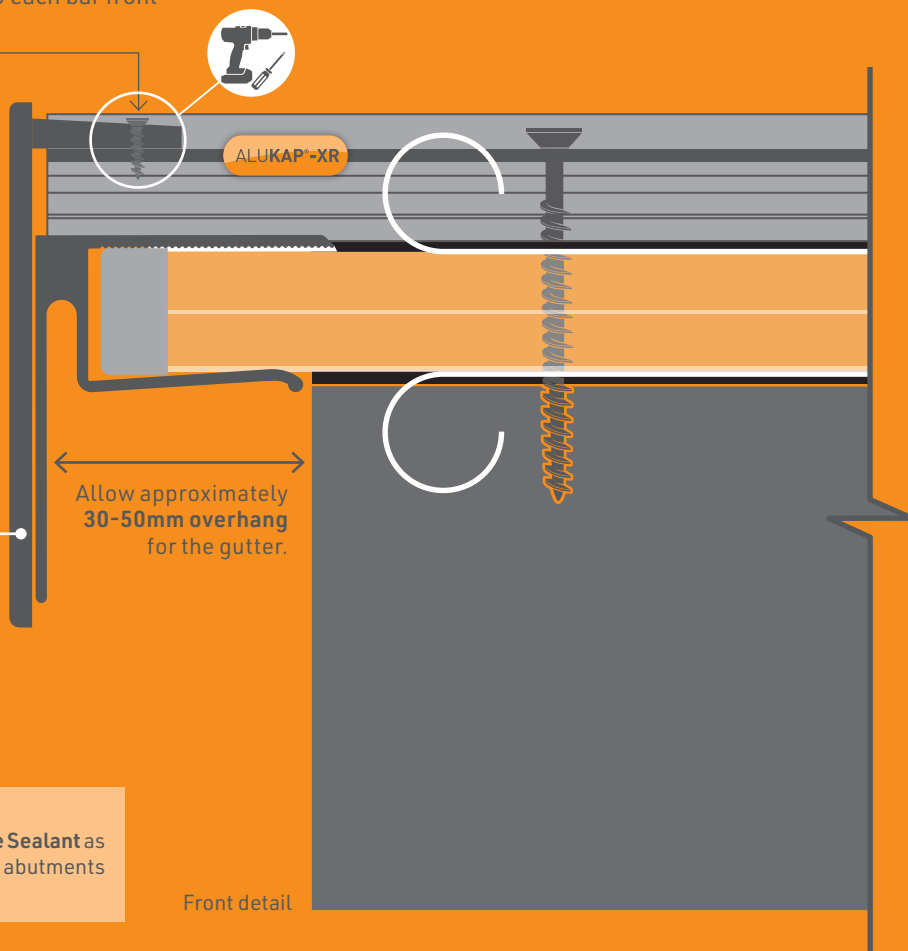
1. Place the Alukap®-XR base bars **directly above each rafter and glazing panel**.
2. **Drill pilot holes** through the pre-drilled holes on the Alukap®-XR base bars, **into the rafters below**.
3. **Screw the Alukap®-XR base bar into the rafter**, taking care not to over-tighten the screw, **but ensuring they are tight enough that the gaskets create a uniform seal with the glazing panels**.



11

Fit the **Alukap® Glazing Bar End Cap** to each bar front

1. Place the **Alukap® Glazing Bar End Cap** into place at the end of the base bar butting up against the Alukap®-XR End Stop Bar / glazing panel.
2. **Make a mark on the base bar** for the position of the screw fixing, remove the end cap and **drill a 2.5mm hole** through the Alukap®-XR base bar.
3. Place the Alukap® Glazing Bar End Cap back into place and use the short screw provided to secure in place.



NOTE:

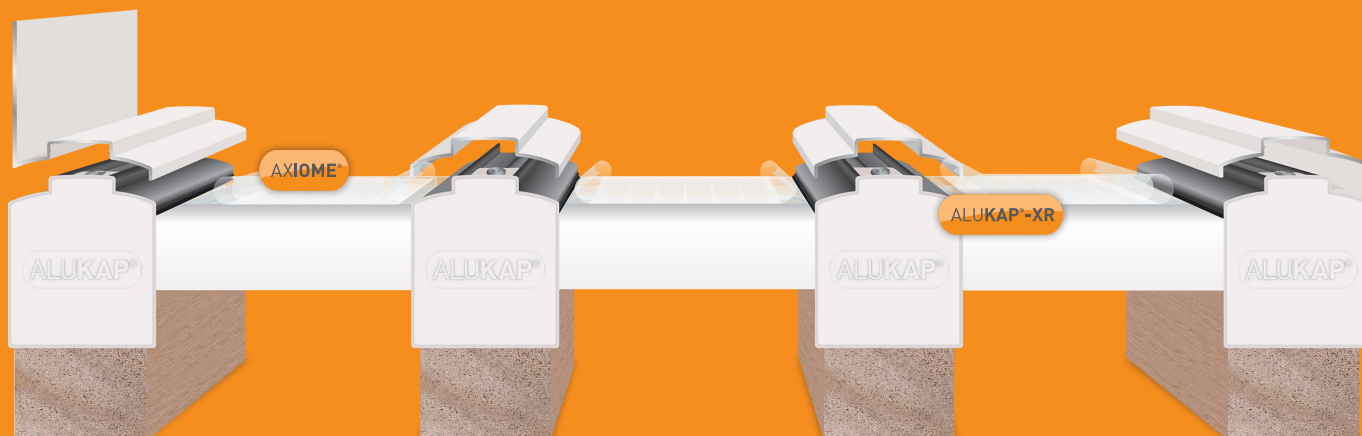
Make **additional seals** with **Securbond® LMN Silicone Sealant** as required where the Alukap®-XR base bar makes any abutments or connections to Wall, Hip or Ridge bars.

Front detail

12

Place the **Alukap®-XR Top Clip Bars** for each bar prepared from **Stage 1**

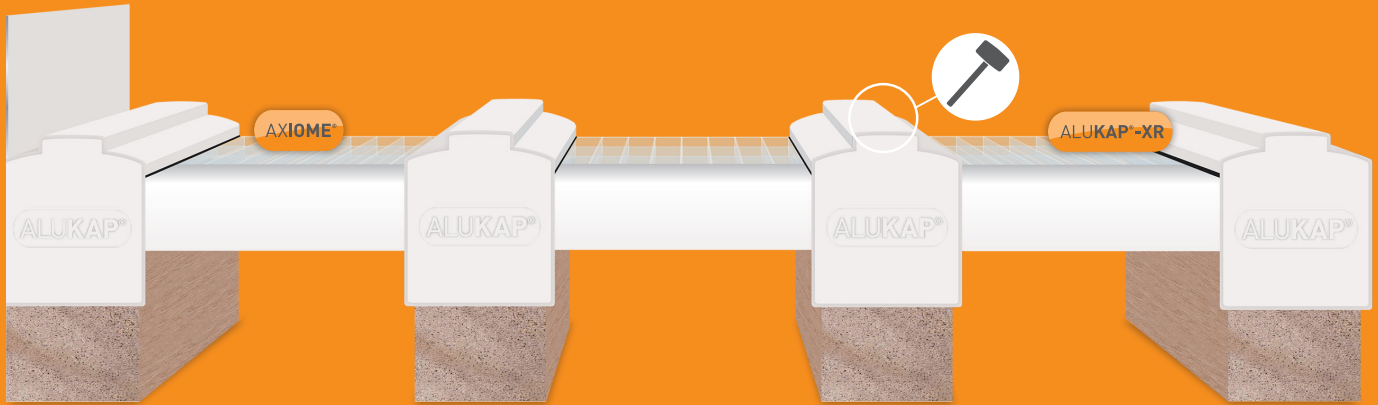
1. Place in order the Alukap®-XR Wall, Glazing Bar and Gable Bar Top Clip bars on top of the mill base bars.
2. Apply **Securbond® Sealant** to the back ribbed edge of the Alukap®-XR Wall bar to create an abutment to the adjacent wall.



13

Fit the **Alukap®-XR Top Clips** to each aluminium base bar

Using a **suitable rubber/plastic headed hammer** and carefully **snap down** the **Alukap®-XR top clips** onto the mill base bars working along the whole length of the roof concealing the fixings and giving a pleasing finish to the roof.



14

Finish the back of the lean-to roof: Fit the **Alukap®-XR Top Wall Flashing**

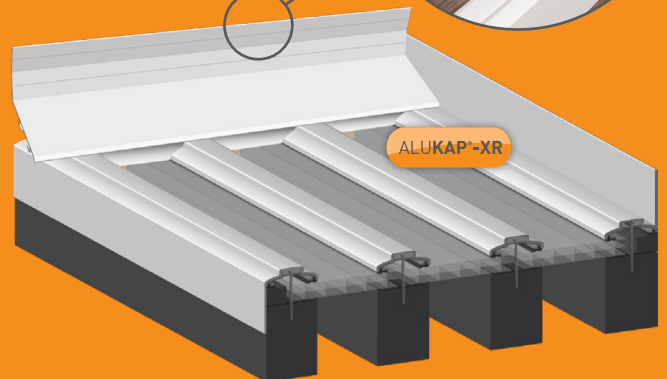
Place, measure and cut the aluminium **Alukap®-XR Top Wall Flashing** to match the full width of the roof. Place the **top wall flashing and foam gasket** onto your roof and mark on the foam gasket the position of each glazing bar.

Cut a notch out of the foam gasket the size of the top clip bar at each marked point so that the foam gasket sits flat on the Axiome® sheets and over each glazing bar. Alternatively, you can simply apply downward pressure to compress the foam gasket at each glazing bar to ensure the foam gasket seals against the Axiome® sheets properly.

Securbond® LMN Silicone Sealant or flashing tape can be used to seal the back of the **Alukap®-XR Top Wall Flashing** to the wall.

Pull the protective film back from the back of the glazing sheets enough to clear the foam gasket.

Position the prepared **Alukap®-XR Top Wall Flashing and foam gasket**, push down and fix to the wall using suitable stainless steel screws.



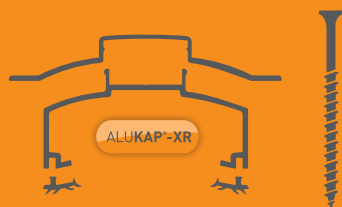
Video : How 2 Install Top Wall Flashing

IMPORTANT – Once the **Axiome®** panels have been installed, **remove the protective film on both sides immediately, making sure that it's clean before removal**, so that dirt or dust particles are not transferred to the surface of the Axiome® sheets.

Any cleaning requires the use of plenty of clean, soapy water and a soft, abrasive-free cloth.

Part 2 : Alukap®-XR Additional Parts

Alukap®-XR Hip Bar

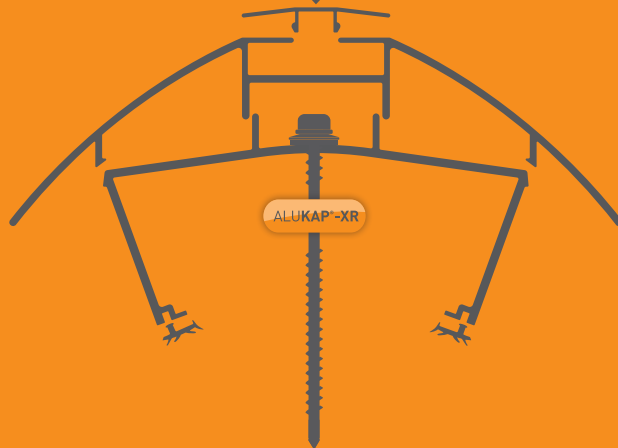


Glazing Bar End Cap
(included with the Hip Bar)



Alukap®-XR Ridge Bar

Alukap®-XR Ridge Snap Channel Cover



Rafter gasket options for both Alukap®-XR Hip and Ridge Bars:

45mm Rafter Gasket



55mm Rafter Gasket



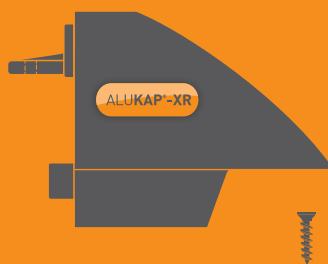
45mm Slot-Fit Rafter Gasket



55mm Slot-Fit Rafter Gasket



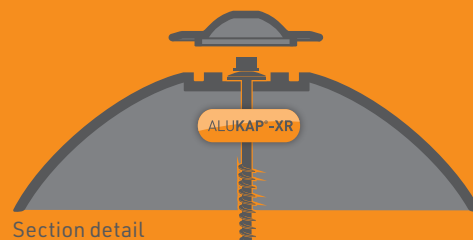
Alukap®-XR Ridge Radius End Cap



Alukap®-XR Ridge Gable End Plate



Alukap®-XR Lantern Pinnacle Cap



Section detail

Alukap®-XR Lantern Radius End Cap

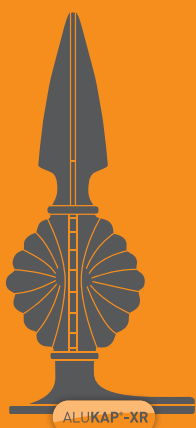


Side view

Alukap®-XR Ridge Crest



Alukap®-XR Ridge Finial



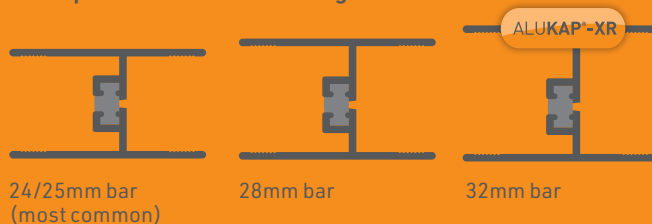
Alukap®-XR Ridge Ball Finial



Alukap®-XR Valley Bar



Alukap®-XR Horizontal Glazing Bars



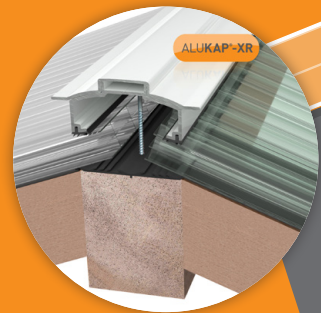
Alukap®-XR : Hip Bar

15 The Alukap®-XR Hip Bar

1. The Alukap®-XR Hip Base Bar should be installed using the same method as the Alukap®-XR glazing bars as shown in Part 1 of this guide.

5. Finally the Alukap®-XR Hip Bar Top Cap can be snapped into position providing an umbrella like cover over the abutments protecting them from the elements.

Glazing sheet and protective film



You can use Alukap®-XR Hip bars on:

- Edwardian Roofs
- Apex Roof Lanterns
- Pinnacle Square Roof Lanterns

Section detail

2. Cut the Alukap®-XR 60mm Base and Top Clip bars to be the same angle where they abut the Alukap®-XR Hip Bar upstand. Fix the mill base bars in place to secure the prepared glazing panels as shown on Page 4. Work along the length of the roof so all the glazing bars and panels are installed.

4. Install all the Alukap®-XR Top Clip bars over the base bars and run a line of Securbond® Sealant around the edge of the fitted top clip bars where they sit on the upstand of the Alukap®-XR Hip bar.

3. Fit the Alukap®-XR End Caps to the Alukap®-XR Base Bars (shown in Page 6).

Alukap®-XR : Roof Lantern Radius End Caps

16 The Alukap®-XR Radius End Cap

The Alukap®-XR Hip Bar can also be used to create a roof lantern. The Alukap®-XR Roof Lantern Pinnacle Top Cap and Radius End Cap are designed to work in conjunction with the Alukap®-XR Hip Bar for this purpose.

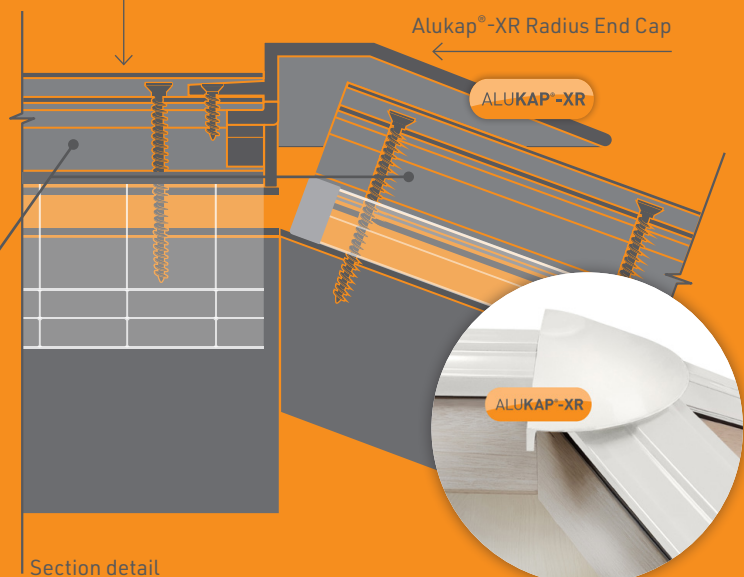


Top view



Rear elevation

Attach the Alukap®-XR Radius End Cap to the end of the Alukap®-XR Hip Base Bar, once secured snap the umbrella-type top cap to the base bar. Next, apply Securbond® Sealant to make a water tight finish.



Section detail

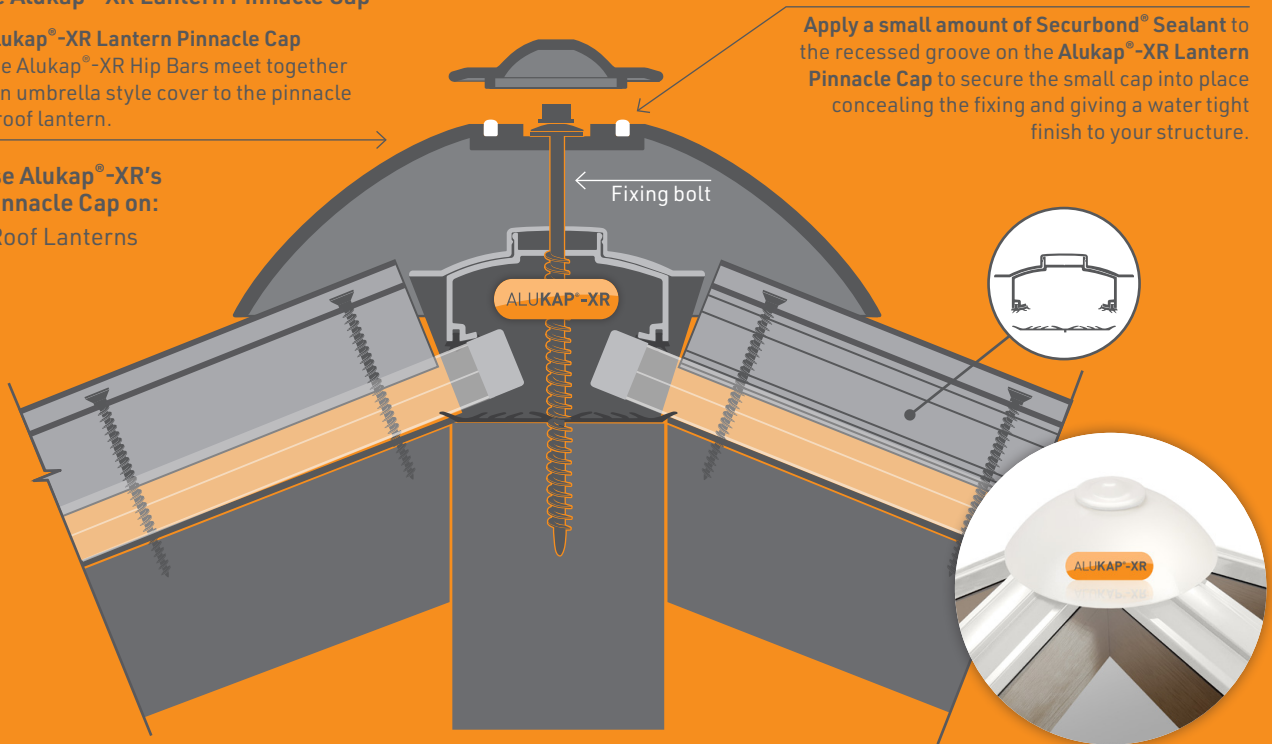
17

The Alukap®-XR Lantern Pinnacle Cap

Place the Alukap®-XR Lantern Pinnacle Cap where all the Alukap®-XR Hip Bars meet together to provide an umbrella style cover to the pinnacle area of the roof lantern.

You can use Alukap®-XR's Lantern Pinnacle Cap on:

- Square Roof Lanterns



Alukap®-XR : Ridge Bar

The Alukap®-XR Ridge System is designed for larger full ridge applications. The following information shows various options whilst installing the Alukap®-XR Ridge, whether you prefer to add Crests, Finials or have a plain flat finish.

18

The Alukap®-XR Ridge Base Bar

1. Cut the Alukap®-XR Ridge base bar and two lengths of the thin standard bar gasket to the desired length.

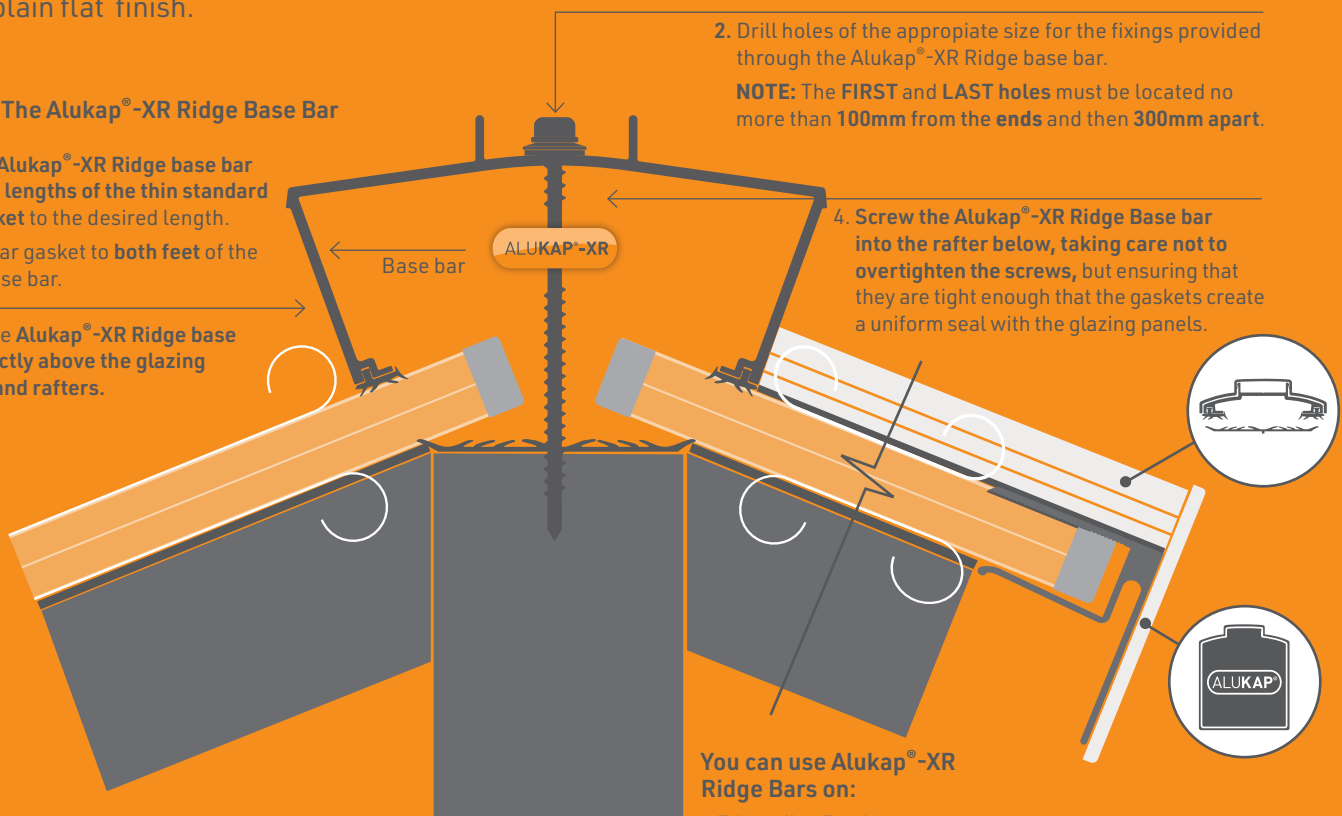
Fit the bar gasket to both feet of the ridge base bar.

3. Place the Alukap®-XR Ridge base bar directly above the glazing panels and rafters.

2. Drill holes of the appropriate size for the fixings provided through the Alukap®-XR Ridge base bar.

NOTE: The **FIRST** and **LAST** holes must be located no more than 100mm from the ends and then 300mm apart.

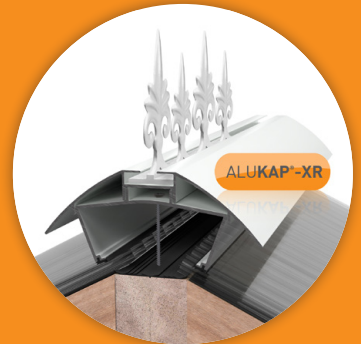
4. Screw the Alukap®-XR Ridge Base bar into the rafter below, taking care not to overtighten the screws, but ensuring that they are tight enough that the gaskets create a uniform seal with the glazing panels.



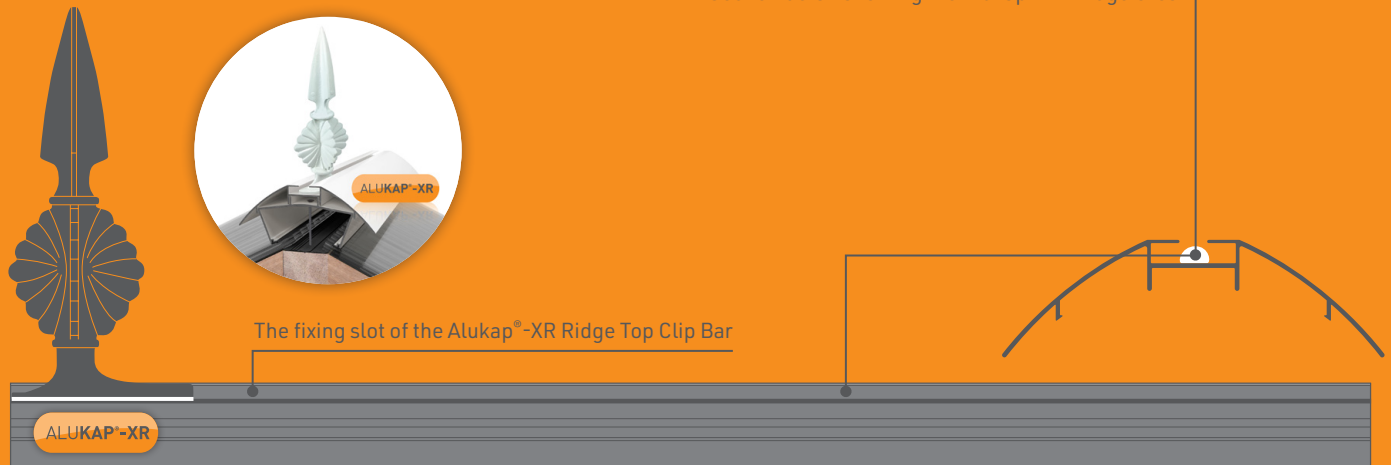
19

Install the Alukap®-XR Ridge Crest to the Ridge Top Clip Bar

1. Cut the Alukap®-XR Ridge Top Clip bar to the same length as the Alukap®-XR Ridge Base bar.
2. Run a line of sealant the full length of the Ridge Crest along the top fixing slot of the Ridge Top Clip bar.
3. Slide the Ridge Crest along the top fixing slot and press down onto the sealant to secure it in place.



Section detail showing the Alukap®-XR Ridge Crest



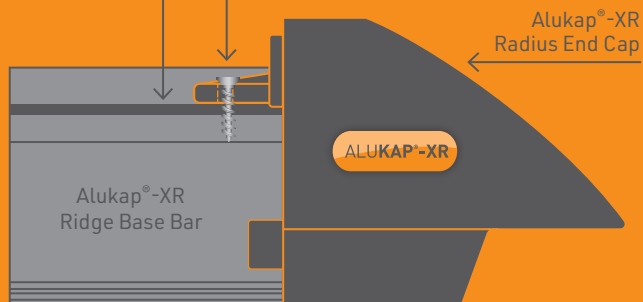
Section detail showing the Alukap®-XR Ridge Finial

20

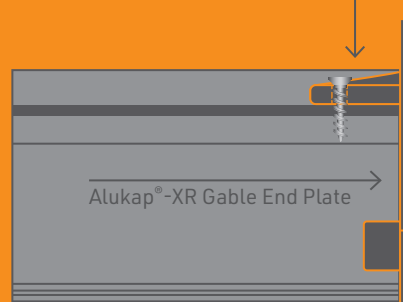
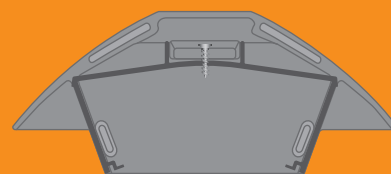
Install the Alukap®-XR Ridge Radius End Cap or Gable End Plate to the Alukap®-XR Base Bar

Alukap®-XR Ridge Base Bar fixing plate.

Attach the Alukap®-XR Radius End Cap or Gable End Plate by placing the tab onto the Alukap®-XR Ridge Base Bar.



Section detail



Section detail



NOTE: Make any additional seals with Securbond® Sealant as required where the Alukap®-XR Ridge Base Bar make any abutments or connections.

21 Install the Alukap®-XR Ridge Top Clip to the Alukap®-XR Ridge Base Bar

1. Lower the pre-cut Alukap®-XR Ridge Bar Top Clip onto the base bar so that the two opposite pairs of inner vertical lugs engage.

2. Use a rubber/plastic headed hammer to gently snap the ridge top clip down on both sides so that the outer location lugs snap firmly together.

Alukap®-XR Ridge top clip

Alukap®-XR Ridge base bar

ALUKAP®-XR

The Alukap®-XR Ridge Snap Channel Cover has been designed to fit perfectly into the open slot of the Alukap®-XR Ridge Top Clip.

Installation: Apply two lines of Securbond® Sealant under the two outer edges along the entire length of the cover. Then push/tap down on the Alukap®-XR Ridge Snap Channel Cover to secure it into place.



IMPORTANT: It is **ESSENTIAL** that the two the external snap-on fasteners are **fully engaged** along the **entire length** of the Alukap®-XR Ridge base bar.

NOTE: Apply **additional sealant** where necessary at joints or connections formed around the Alukap®-XR Ridge Top Clip.

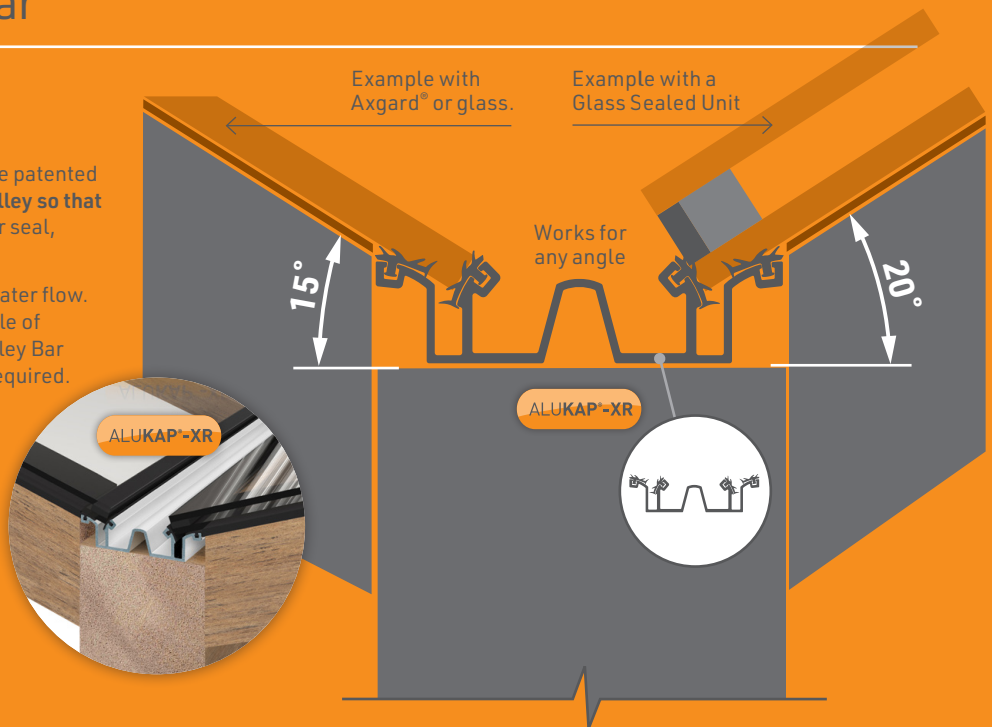
WARNING: for security reasons, the Alukap®-XR Ridge Cap and Ridge Snap Channel Cover are designed to be **permanently fixed**; they cannot be easily removed once the final snap-fix has been completed!!

Alukap®-XR : Valley Bar

22 Alukap®-XR Valley Bar

The Alukap®-XR Valley Bar is one entirely unique patented design. It is designed to **recess into a timber valley so that it is entirely concealed**. It's double gasket water seal, ensures that there are no possibilities of leaks.

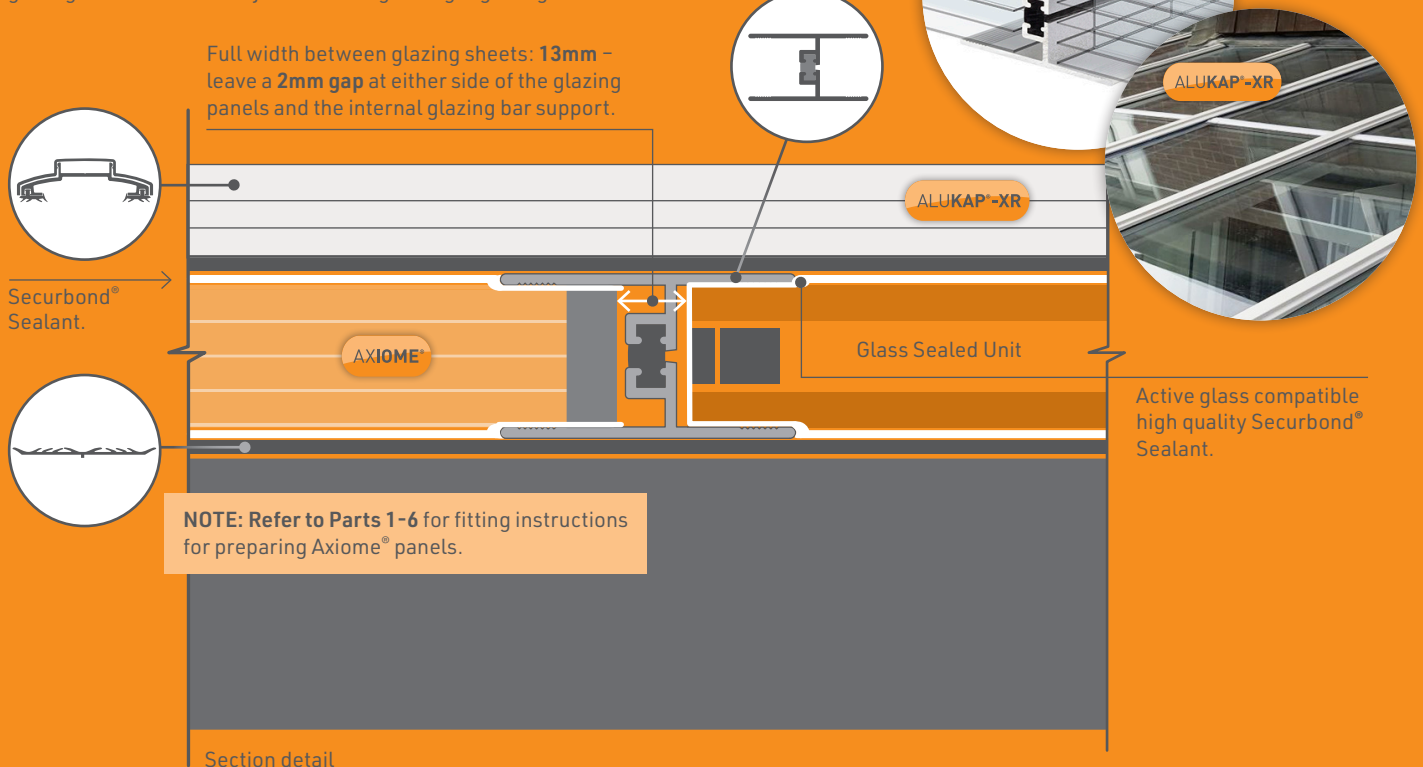
The high-capacity channels ensure a fast rainwater flow. The Alukap®-XR Valley Bar suits almost any angle of glazing. For extreme angles the Alukap®-XR Valley Bar can be simply tilted within the valley timber if required.



Alukap®-XR : Horizontal Glazing Bar

23 Alukap®-XR Horizontal Glazing Bar

The Alukap®-XR Horizontal Glazing Bar is designed to **join two pieces of glazing with a horizontal connection part way down a slope**, where the glazing material has to be joined for longer length glazing.



WARNING : REGISTERED DESIGNS & PATENTS

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Inasmuch as Clear Amber have no control over the circumstances in which our material may be used, or site specific parameters, we cannot guarantee that any particular results will be achieved. Users should carry out their own tests to determine the suitability of the material for their application. Installers should satisfy themselves that published permissible loadings and bar spacings for Alukap®-XR structures, together with any supporting posts, frames, or walls and fixings, are sufficient to provide adequate strength for the intended use and to meet regional loading requirements. Installers should also obtain their own job-specific structural engineer's report for their individual site. Samples are readily available to users to test and verify the exact sizes according to their site requirements.