

GENERAL CONSIDERATIONS FOR INSTALLING TZ-C ROOF PANELS

Product safety:

It is necessary to consider the information given on the Product Safety Sheet.

Precautions:

In order to prevent scratches, dents and deformation during installation, rubber footwear must be worn, burrs must be eliminated after cutting and any concentrated loads on the panels should be avoided.



FASTENINGS:

The fastening screws must be selected in accordance with the support material and the strength and durability requirements. The tightening torque for the screwdriver machine must be that necessary to guarantee correct fastening, avoiding excessive torque, which could cause surface deformation on the exterior panel sheet.

PROTECTION FILM:

Check that the protection film (if applicable) was completely removed while the panels were being secured to the support structure.

EARTHING:

It is recommended that the panels be earthed as well as the roof-support structure to avoid the accumulation of static electricity.

INSTALLING TZ-C ROOF PANELS WITHOUT OVERLAP

MINIMUM ROOF SLOPE:

4% (A minimum 5% roof slope is recommended)

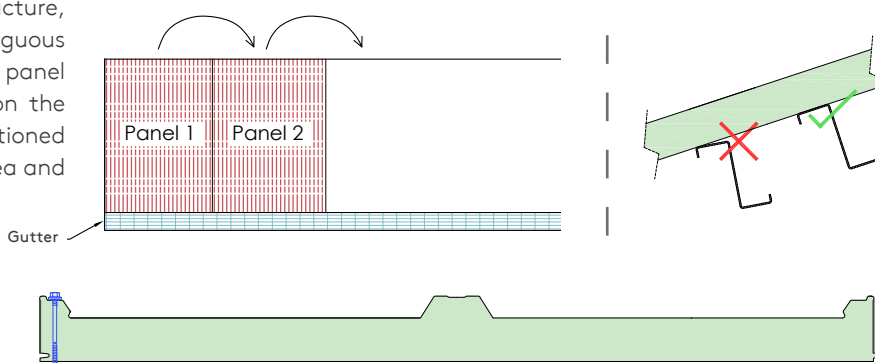
INSTALLATION DIRECTION:

The TZ-C roof panel does not require a specific direction for the installation without overlap.

It is only necessary to respect the tongue and groove anchoring.

INSTALLATION SEQUENCE:

1. Remove the temporary protection film as the panels are installed (if applicable).
2. Install on the structure all the corresponding installation accessories under the panel, in other words, those in contact with the roof support structure. The use of sealing tape is recommended over the ridge purlin before installing the roof panel.
3. Fasten the first panel to the structure, starting with the rib that is contiguous to the side of the roof. The panel must be perfectly positioned on the support. The screw must be positioned perpendicular to the surface area and centred over the ridge.

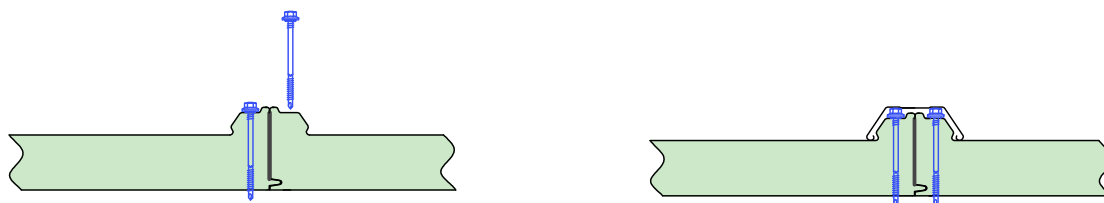


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4. Install the second panel, paying attention to the tongue and groove joint. Panel installation is easier by fitting them together with a slight inclination.



5. Screw both panels to the structure by adjacent ridges to the tongue and groove and fit the flashing.



6. Proceed in a similar fashion with the rest of the roof, with continual checking of alignment between panels and panel to structure alignment.
7. When the roof is completed, cut off the excess on the side of the last panel with a jigsaw or cold cutting disc and eliminate any chips that might remain on the surface after the cutting operation.
8. Install the remaining roof elements (flashings, finishes etc).

INSTALLING TZ-C ROOF PANELS WITH OVERLAP

MINIMUM ROOF SLOPE:

7% (A minimum 10% roof slope is recommended)

PANEL OVERLAP:

The connection between two overlapping panels must always be made over a purlin.

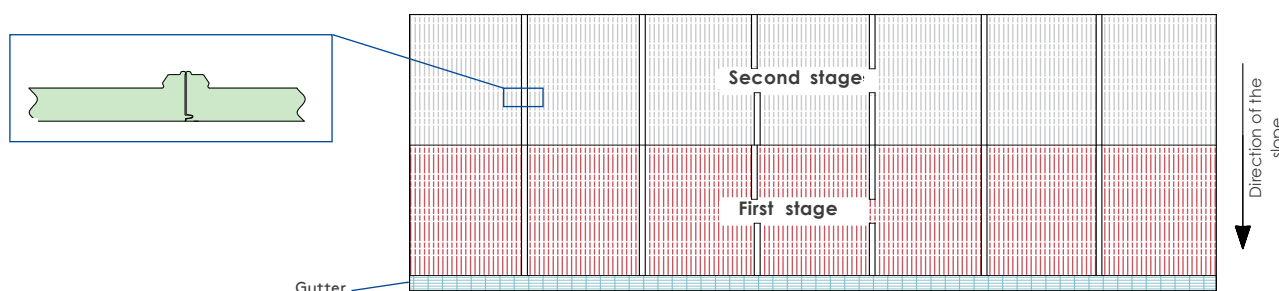
The width of said purlin must be at least 80 mm.

The recommended minimum overlap length is 200 mm.

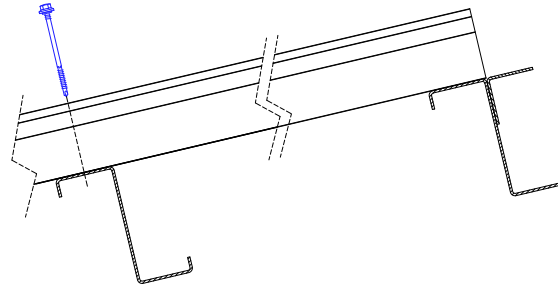
The panel overlap and that of the flashing must not coincide and should be spaced apart by at least 50 cm.

INSTALLATION SEQUENCE:

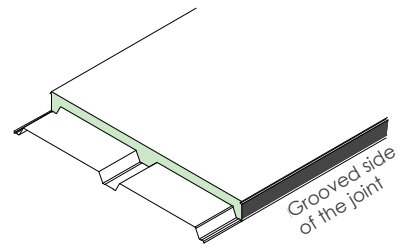
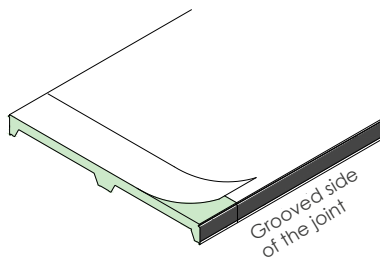
1. Remove the temporary protection film as the panels are installed (if applicable).
2. First install the panels on the lower part of the slope just as described for the installation without overlap, but without screwing the panel to the upper purlin where the overlap will be formed. Viewing the panel from the lower part of the slope, the panel tongue must be to the left and the groove to the right.



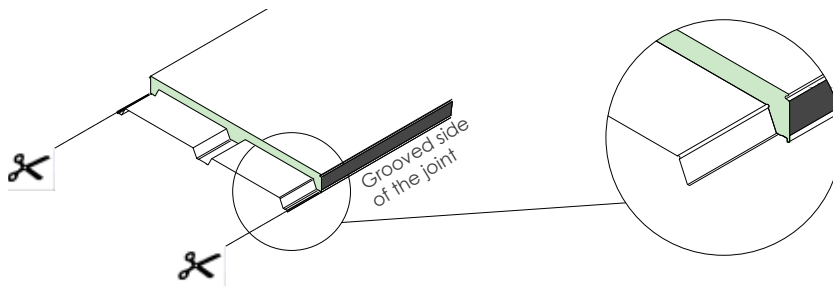
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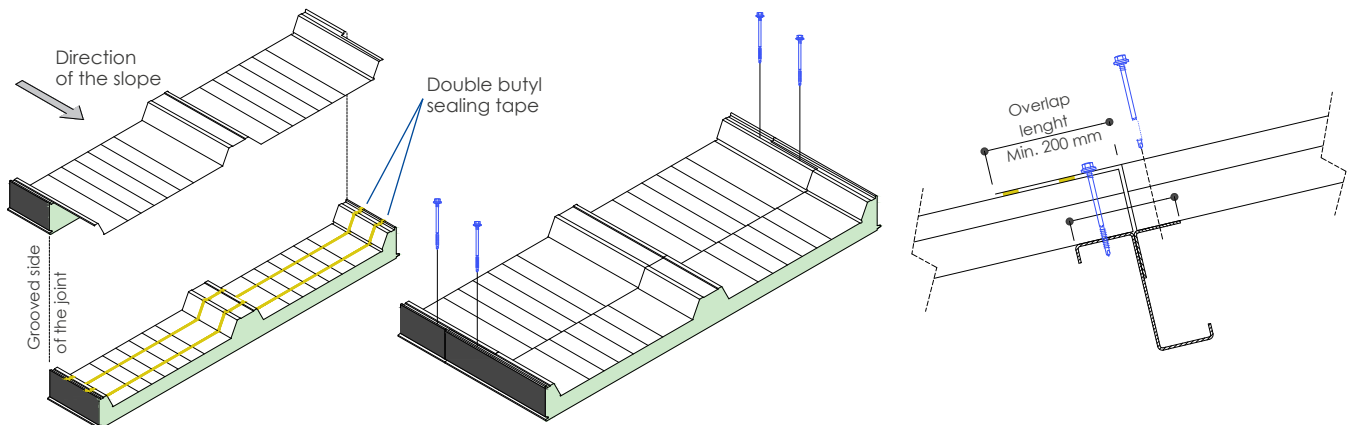
3. Remove the inner sheet (precut) and the foam from the panel with the overlap cut (upper panel).



4. Cut the side edges of the overlap and remove the excess sheet.

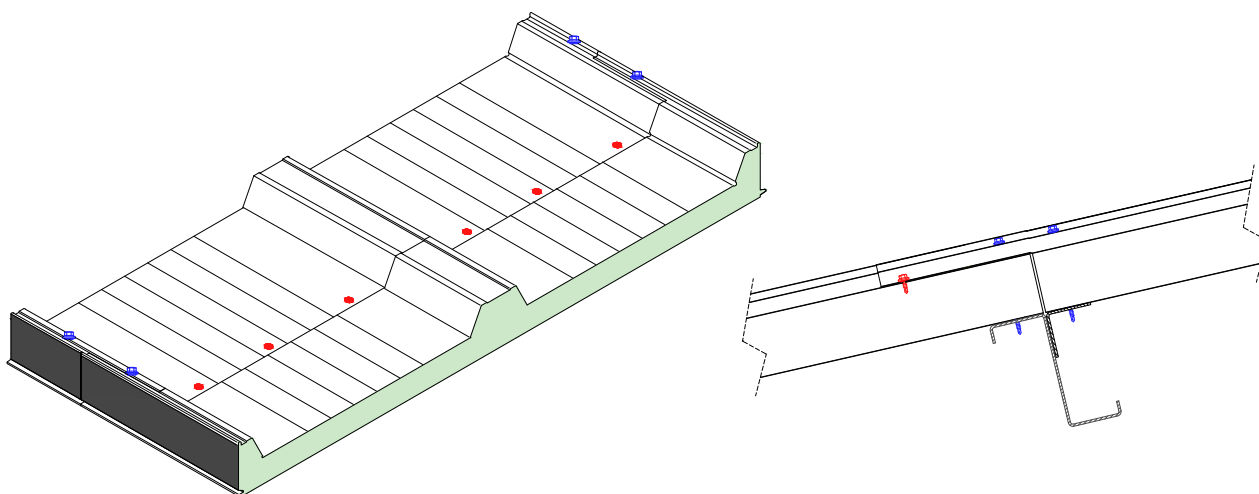


5. Apply the double butyl sealing tape to the overlap area on the lower panel, after prior cleaning and drying of the surface.
6. Install the panel for the upper part of the overlap. Fasten the panel of the lower part of the overlap to the purlin, followed by the upper part.



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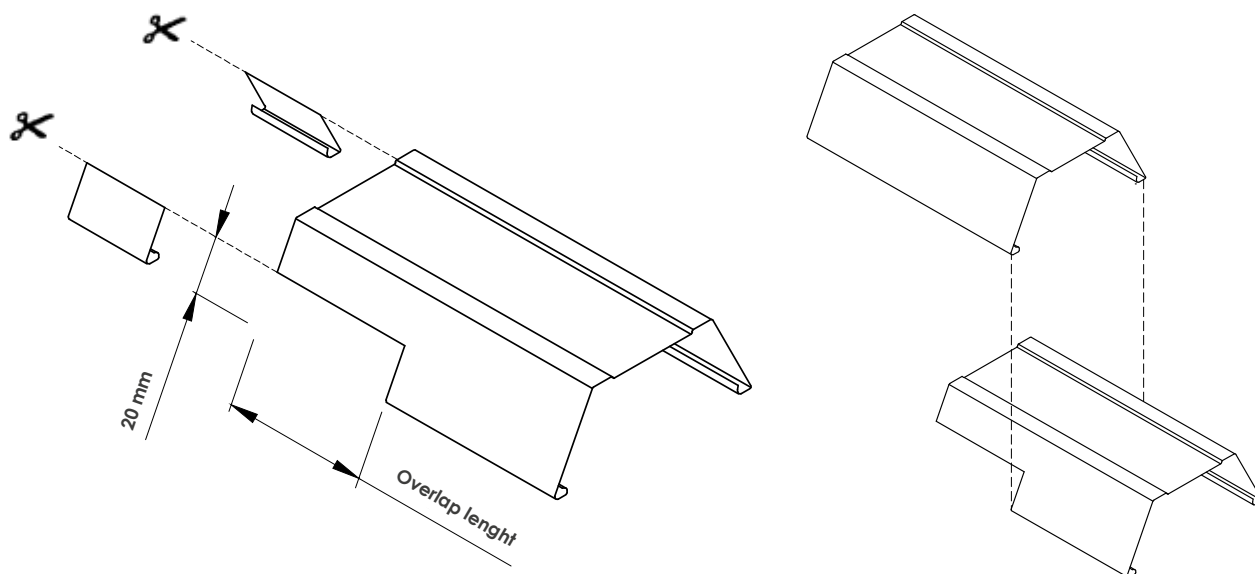
7. Screw the overlap sheet using two or three screws in each valley (shown in red on the drawing) to the lower panel.



8. Continue this process in a similar way for the adjacent panels.

9. **Flashing overlap:** In order to prevent water filtration, the flashing must be overlapped just as described below:

- 9.1. Apply sealing to the upper part of the longitudinal joint between panels over a length of one metre above and below the overlap line.
- 9.2. It is recommended that the flashing be installed so that there is a minimum shift of 50 cm between the panel and flashing overlaps. This shift may be obtained simply by interchanging the flashings on the upper and lower panels.
- 9.3. Cut some 20 mm from the sides of the flashing to be fitted to the lower part with the length of the panel overlap and install it. Then install the upper flashing.



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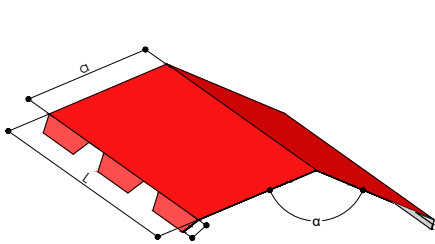
COMPLEMENTS AND FLASHINGS

Kingspan has a wide range of finishes and complements available, which are ideal for simple comprehensive roof execution and obtaining optimum finishes.

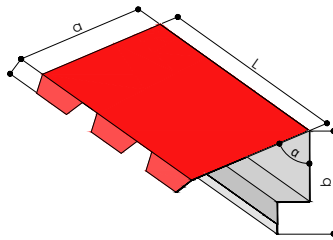
Flashings:

These are made to measure with 0.6 mm thick steel sheet, according to the requirements of each specific client and project.

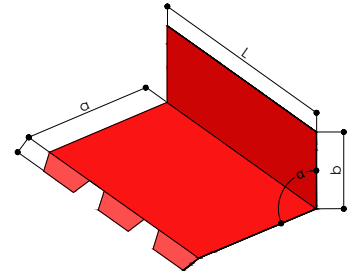
Length of the die-stamped finishes: Width of three panels + 200 mm overlap.



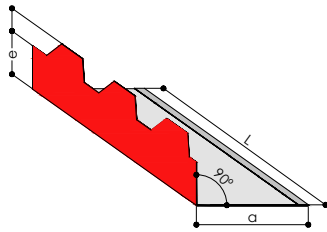
TZ-C DIE-STAMPED RIDGE



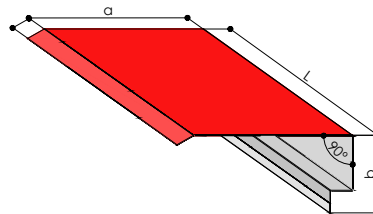
TZ-C SLOPE APEX CREST



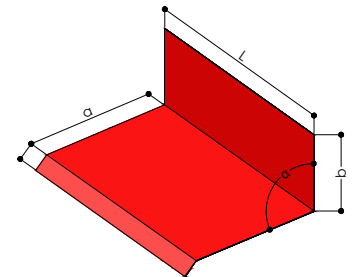
TZ-C FAÇADE JOINT TO SLOPE APEX



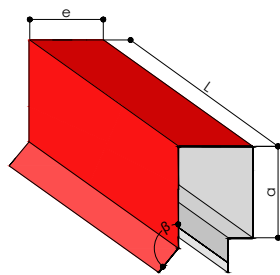
TZ-C LOWER DIE-STAMPED SLOPE FINISH (Width: 1 panel)



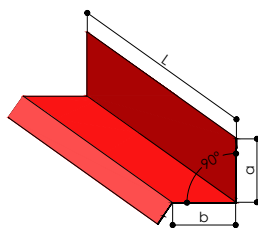
TZ-C CREST ON LATERAL SLOPE



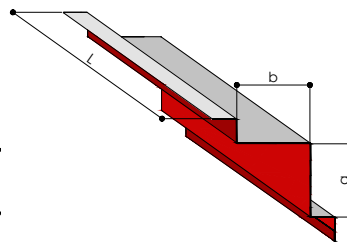
TZ-C CREST ON FACADE TO SIDE



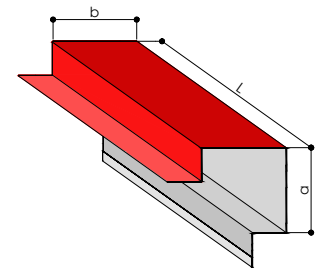
TZ-C CREST COPING



TZ-C GUTTER



TZ-C INTERIOR ANGLE



CT EXTERIOR ANGLE

Ridge joint:

Depending on the roof slope, the system water-tightness is completed with a closed-cell polyethylene foam profile that has TZ-C panel rib geometry and adhesive to make installation easier. Length: 1.15 m.



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CONSTRUCTIVE DETAILS

System installations that have visible fastenings require the use of electric screwdrivers fitted with depth limiters to prevent the screws from sinking into external surfaces of the elements being fastened.

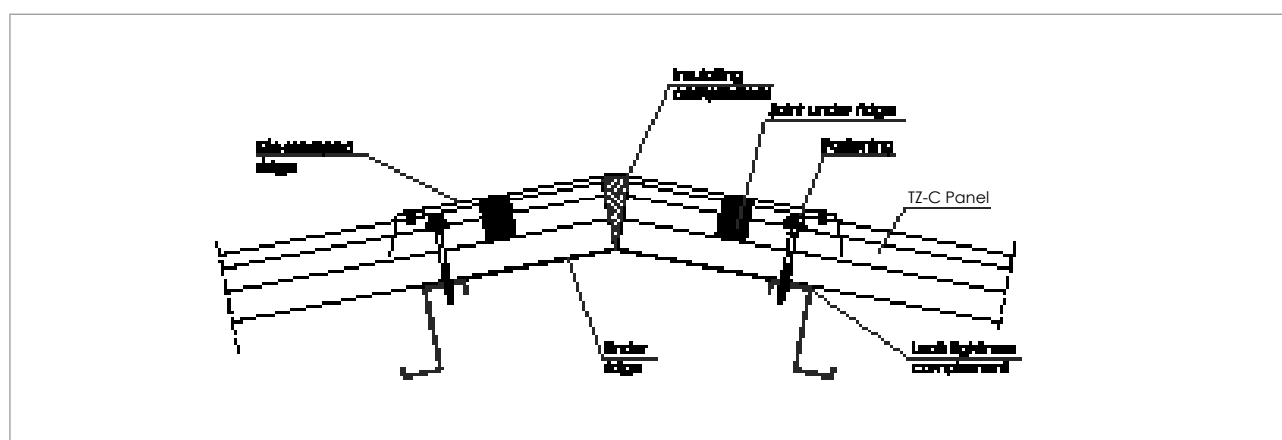
DOUBLE-SLOPE RIDGE:

The roof ridge is finished with a die-stamped finish that is adapted to the ribbed panel profile.

The joint between the panels is filled with an insulating complement to provide insulation continuity.

It is recommended that sealing tape be employed between the panel and the first purlin to form a vapour barrier.

If the roof ridge is not die-stamped, a polyethylene profile will have to be installed under the ridge that adapts to the panel ribbing.

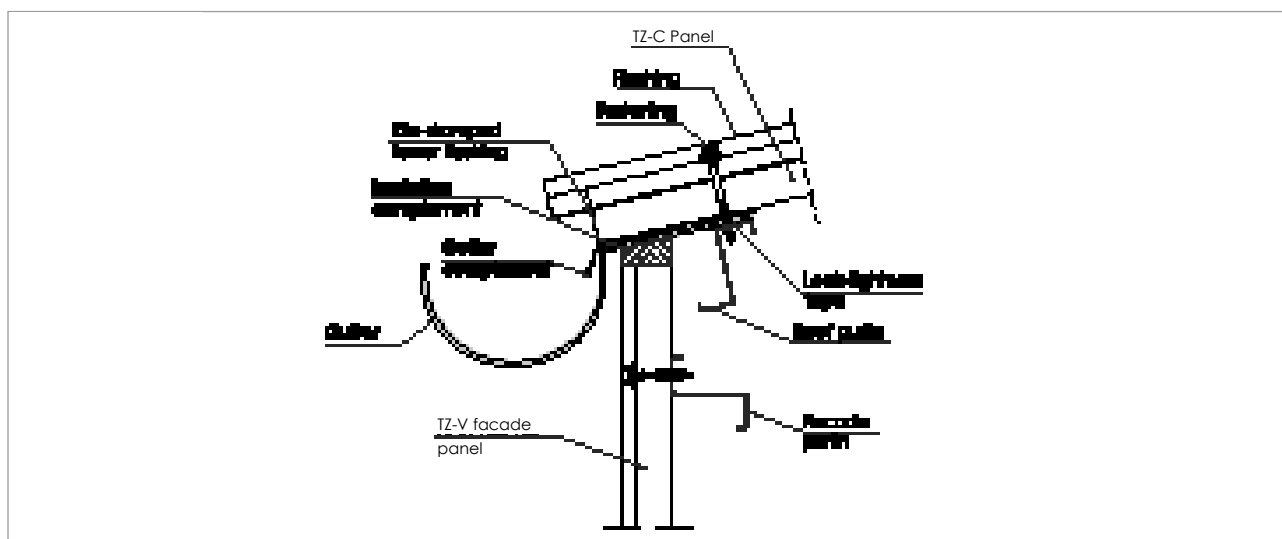


JOINT BETWEEN THE ROOF, THE FAÇADE AND DRAINPIPE:

The drainpipe and guttering are supported on the last roof purlin or supporting structure element. A gutter profile leads to the drainpipe. A self-tapping screw will simultaneously fasten the panel, gutter and drainpipe.

It is recommended that water-tightness tape be employed between the panel and the gutter to form a vapour barrier.

Optionally, the isolating core of the roof panel will be covered by a die-stamped steel finish that adapts to the panel ribbing.

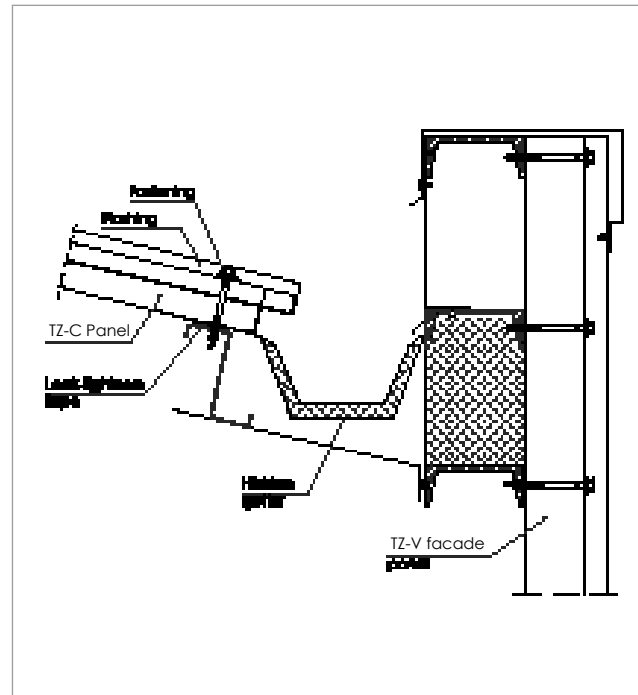
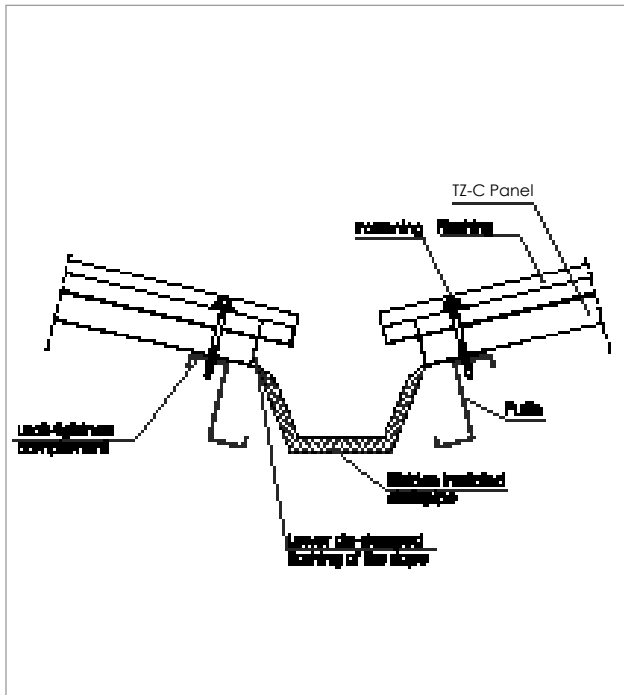


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JOINT BETWEEN ROOF AND INTERIOR DRAINPIPE:

If the drainpipe is interior, it must be insulated with mineral wool or fibre glass. The drainpipe will be supported on the roof purlins or on the last roof purlin and one on the façade.

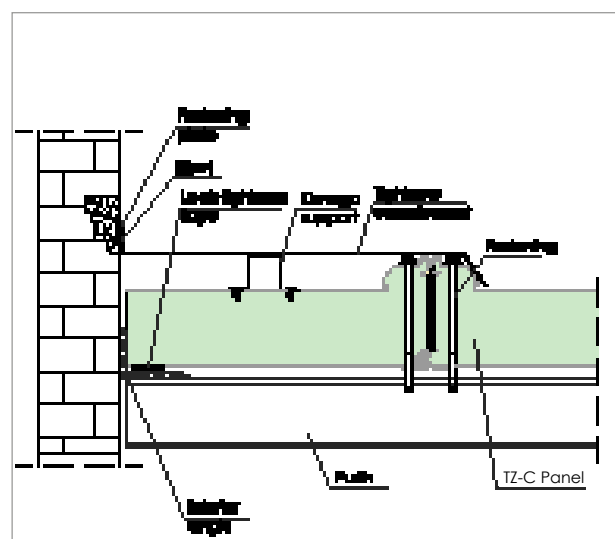
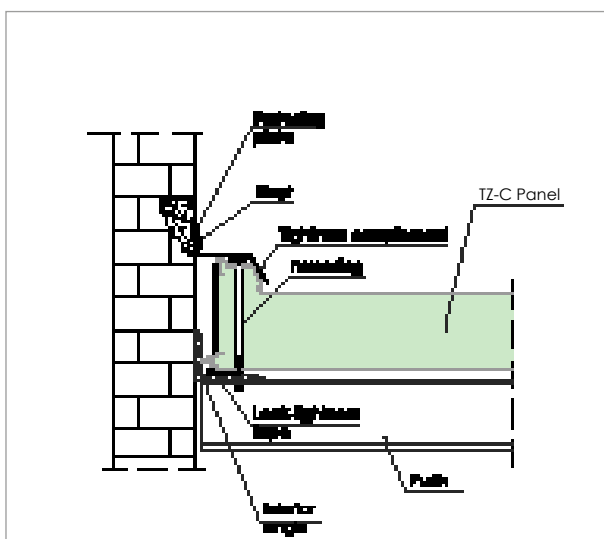
It is recommended that sealing tape be employed between the panel and the drainpipe to form a vapour barrier.



INNER-WALL SIDE JOINT:

An interior angle, supported on the purlin, forms a guide for positioning the TZ-C panel. It is recommended that sealing tape be employed between the panel and the angle as a vapour barrier.

The pre-lacquered steel profile of the gutter will be embedded in the wall and must be extended to the nearest ribbing on the TZ-C panel. If necessary, an omega support profile will be fastened to the panel to support the gutter.



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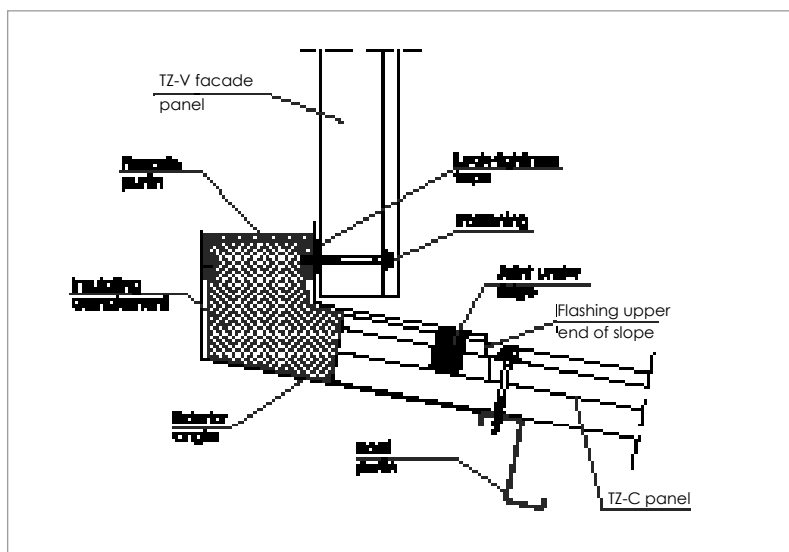
JOINT BETWEEN ROOF AND FAÇADE:

An insulating complement will be fitted to the joint between the roof panel and the façade to provide insulation continuity.

The ribbing interior will be ended with an angle in the pre-lacquered sheet and insulating tape will be applied to form a vapour barrier.

The exterior will be fitted with a die-stamped finish at the slope apex, which will be fastened to the façade purlin prior to installing the façade panel.

If the finish is not die-stamped, a polyethylene membrane profile will be installed that adapts to the panel ribbing.

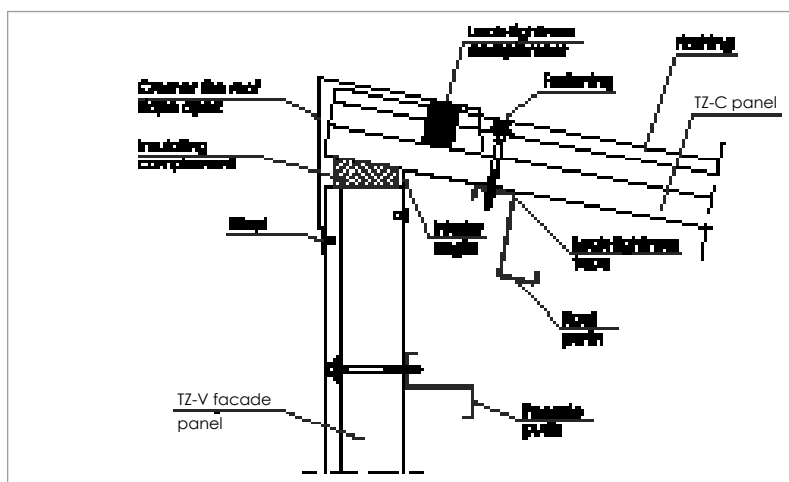


ROOF JOINT WITH THE FAÇADE IN HIGH SLOPE POSITION:

The crest at the roof slope apex with the façade is finished using a die-stamped finish.

If the finish is not die-stamped, a polyethylene profile will be installed as a water-tightness complement.

The joint between the panels is filled with an insulating complement to provide insulation continuity. The finish profile will be riveted to the panels.



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