A gable edge profile (20) for use with a fixing arrangement for fixing a glazing panel (1) in a glazed roof assembly comprises an elongate body (22) having anchoring means (24) adapted to engage a glazing carrier (4) to secure the profile thereto. The profile comprises an elongate spacer element (26) connected to the body by a flexible hinge joint (28). The spacer element comprises a flexible membrane which extends upwardly and inwardly from the hinge joint and which is adapted to deflect to accommodate glazing panels of different thickness.
GB 2429029 A continuation

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Gable edge profile

The present invention relates to a gable edge profile and, in particular, to a gable edge finishing profile adapted for use in a fixing arrangement for glazing panels in a glazed roof assembly or the like.

Known fixing arrangements for fixing glazing panels edge to edge in a glazed roof assembly comprise an elongate capping member adapted to overlie adjacent longitudinal edges of adjacent glazing panels and bridge a gap between the panels; an elongate base member having a central portion adapted to extend into the gap between the panels, and a pair of wings extending laterally from respective opposite longitudinal sides of the central portion, the wings being adapted to underlie the adjacent longitudinal edges of the glazing panels; and means for connecting the capping member to the base member so that a glazing panel may be secured therebetween, for example, the capping member may have a central section which snaps down into the central portion of the base member.

The present invention has been made in order to provide a finishing profile adapted for use with such a fixing arrangement where the fixing arrangement is used at a gable edge. In particular, the profile of the invention is suitable for use with fixing arrangements which accommodate roof glazing materials having a range of thicknesses.

According to the invention there is provided a gable edge profile for use with a fixing arrangement for
fixing a glazing panel in a glazed roof assembly comprising an elongate body having anchoring means adapted to engage a glazing carrier to secure the profile thereto, and an elongate spacer element connected to the body by a flexible hinge joint, the spacer element comprising a flexible membrane which extends upwardly and inwardly from the hinge joint and which is adapted to deflect to accommodate glazing panels of different thickness.

Preferably, the spacer element is adapted to deflect to accommodate panels of thickness greater than 10mm or panels of thickness substantially in the range 10 to 25 mm or more. Preferably, the free edge of the spacer element is adapted to engage a capping member or a seal thereon in use.

Preferably, the body is of hollow cross-section.

Preferably, the body comprises an inner part adapted to overlie a rafter in use and an adjoining outer part adapted to overhang the rafter in use. Preferably, the inner part has a substantially triangular cross-section and the outer part has a substantially rectangular cross-section.

Preferably, the anchoring means is adapted to engage in a recess on the glazing carrier. Preferably, the anchoring means is located adjacent an inner edge of the body and the hinge joint is provided adjacent an outer edge of the body.
Preferably, the profile comprises a depending leg which extends downwardly from the body. Preferably, the leg extends from a central region of the underside of the outer body part and is adapted to be spaced from a rafter in use.

The invention further provides a fixing arrangement for fixing a glazing panel in a glazed roof assembly comprising an elongate capping member adapted to overlie a longitudinal edge of the glazing panel, an elongate carrier member having a central portion and a pair of wings extending laterally from respective opposite longitudinal sides of the central portion, a wing being adapted to underlie the longitudinal edge of the glazing panel, and fixing means for connecting the capping member to the carrier member, the arrangement comprising a gable edge profile of the invention fitted to a wing of the carrier member.

The invention will now be described further, by way of example only, with reference to the accompanying drawing which is a cross-sectional view of a glazing panel assembly incorporating a gable edge profile according to the invention.

Referring to the drawing, a fixing arrangement for fixing a glazing panel 1 in a glazed roof assembly comprises an elongate capping member 2 and an elongate glazing carrier 4 adapted to be located on a rafter 10, each typically comprising a substantially constant cross-section extrusion.
The glazing carrier 4 has a generally T-shaped cross section with a central portion 6 adapted to extend upwardly adjacent an end of the glazing panel 1 and a pair of wings 8,9 which extend laterally from respective opposite longitudinal sides of the central portion 6, one wing 8 being adapted to underlie the adjacent longitudinal edge of the glazing panel.

Each wing 8,9 comprises an elongate recess 7 for receiving an elongate gasket 18 which comprises an anchoring means for locating the gasket in the recess and a series of projections for sealing against a glazing panel in use.

The capping member 2 is of shallow, generally arched or inverted V-shaped cross section and is adapted to overlie a longitudinal edge of the glazing panel. The capping member comprises a pair of elongate flanges 12 extending outwardly and downwardly from a central section 14.

A flexible polymer seal 16 is provided along each longitudinal edge of the capping member, on the underside of each flange 12, and is adapted to seal, in use, against the upper surface of a glazing panel or the gable edge profile.

The capping member 2 is secured to the glazing carrier 4 by suitable fixing means. Typically, the fixing means comprises the central section of the capping member being adapted to engage, for example as a snap fit, with the central portion of the glazing carrier.
A gable edge profile 20 of the invention is located on a wing 9 of the glazing carrier. The profile comprises an elongate body 22, typically of hollow cross-section, having an anchoring means 24 for engaging in the recess 7 on the wing to secure the profile to the glazing carrier and an elongate spacer element 26 connected to the body by a flexible hinge joint 28.

The spacer element 26 comprises a flexible membrane which extends upwardly and inwardly in a curve from the hinge joint 28, which is typically provided on an outer edge of the body. The free edge of the spacer element is adapted to engage the capping member 2 or a seal 16 thereon in use.

Typically, the body 22 comprises an inner part 30 adapted to overlie a rafter 10 in use and an adjoining outer part 32 adapted to overhang the rafter in use. In the embodiment shown in the drawing, the inner part has a substantially triangular cross-section and the outer part has a substantially rectangular cross-section.

Typically, the anchoring means is located adjacent an inner edge of the body, for example adjacent the free vertex of the triangular inner body part 30. Thus, typically the anchoring means and the hinge joint are provided adjacent opposite edges of the body.

Typically, the profile comprises a depending leg 34 which extends downwardly from the body 22 and is adapted to lie parallel to the side of a rafter in use. Typically, the leg 34 extends from a central region of the underside of outer body part 32 and is spaced from
the rafter in use to facilitate installation of a flashing membrane 36.

Typically, the gable edge profile, including its hinged spacer, comprises uPVC.

In use, the spacer element deflects to accommodate glazing panels of different thickness, typically from 10mm up to 25mm or more. Thus, the deflection of the spacer element on the outer edge of the glazing assembly depends on the thickness of the glazing material on the inner edge of the assembly; the thinner the glazing material 1, the greater the deflection of the spacer element. The spacer element is constantly sealed by the flexible polymer seal 16 on the capping member irrespective of the thickness of the glazing material.

Thus, it will be seen that the gable edge profile of the invention is suitable for use with glazing panels of different thickness, and particularly panels of thickness greater than 10mm or panels of thickness substantially in the range 10 to 25 mm or more.

It will be appreciated that the gable edge profile of the invention may be provided on either side of the glazing carrier thereby providing dual versatility.

It will be appreciated that expressions of orientation or direction, such as "overlie", "underlie", "upper", "underside", "outwardly", "inwardly", "downwardly", "upwardly", "inner", "outer" and the like, are used for convenience and refer to the normal orientation of the
glazing panel assembly and gable edge profile as illustrated in the accompanying drawing. However, such expressions are not to be regarded as limiting the orientation of the gable edge profile in use.

5

It will be appreciated that the present invention is not intended to be restricted to the details of the above embodiment, which is described by way of example only.
Claims

1. A gable edge profile for use with a fixing arrangement for fixing a glazing panel in a glazed roof assembly comprising an elongate body having anchoring means adapted to engage a glazing carrier to secure the profile thereto, and an elongate spacer element connected to the body by a flexible hinge joint, the spacer element comprising a flexible membrane which extends upwardly and inwardly from the hinge joint and which is adapted to deflect to accommodate glazing panels of different thickness.

2. A gable edge profile according to claim 1 wherein the spacer element is adapted to deflect to accommodate panels of thickness greater than 10mm or panels of thickness substantially in the range 10 to 25 mm or more.

3. A gable edge profile according to any preceding claim wherein the free edge of the spacer element is adapted to engage a capping member or a seal thereon in use.

4. A gable edge profile according to any preceding claim wherein the body is of hollow cross-section.

5. A gable edge profile according to any preceding claim wherein the body comprises an inner part adapted to overlie a rafter in use and an
adjoining outer part adapted to overhang the rafter in use.

6. A gable edge profile according to claim 5 wherein the inner part has a substantially triangular cross-section and the outer part has a substantially rectangular cross-section.

7. A gable edge profile according to any preceding claim wherein the anchoring means is adapted to engage in a recess on the glazing carrier.

8. A gable edge profile according to any preceding claim wherein the anchoring means is located adjacent an inner edge of the body and the hinge joint is provided adjacent an outer edge of the body.

9. A gable edge profile according to any preceding claim wherein the profile comprises a depending leg which extends downwardly from the body.

10. A gable edge profile according to claim 9 when dependent on claim 5 wherein the leg extends from a central region of the underside of the outer body part and is adapted to be spaced from a rafter in use.

11. A gable edge profile substantially as hereinbefore described with reference to and as illustrated in the accompanying drawing.
12. A fixing arrangement for fixing a glazing panel in a glazed roof assembly comprising an elongate capping member adapted to overlie a longitudinal edge of the glazing panel, an elongate carrier member having a central portion and a pair of wings extending laterally from respective opposite longitudinal sides of the central portion, a wing being adapted to underlie the longitudinal edge of the glazing panel, and fixing means for connecting the capping member to the carrier member, the arrangement comprising a gable edge profile according to any preceding claim fitted to a wing of the carrier member.
Amendments to the claims have been filed as follows

Claims

1. A gable edge profile for use with a fixing arrangement for fixing a glazing panel in a glazed roof assembly comprising an elongate body having an inner part adapted to overlie a rafter in use and an adjoining outer part adapted to overhang the rafter in use, the body having anchoring means adapted to engage a glazing carrier to secure the profile thereto, and an elongate spacer element connected to the body by a flexible hinge joint, the spacer element comprising a flexible membrane which, in use, extends upwardly and inwardly from the hinge joint and which is adapted to deflect to accommodate glazing panels of different thickness.

2. A gable edge profile according to claim 1 wherein the spacer element is adapted to deflect to accommodate panels of thickness greater than 10mm or panels of thickness in the range 10 to 25 mm.

3. A gable edge profile according to any preceding claim wherein the free edge of the spacer element is adapted to engage a capping member or a seal thereon in use.

4. A gable edge profile according to any preceding claim wherein the body is of hollow cross-section.
5. A gable edge profile according to any preceding claim wherein the inner part has a substantially triangular cross-section and the outer part has a substantially rectangular cross-section.

6. A gable edge profile according to any preceding claim wherein the anchoring means is adapted to engage in a recess on the glazing carrier.

7. A gable edge profile according to any preceding claim wherein the anchoring means is located adjacent an inner edge of the body and the hinge joint is provided adjacent an outer edge of the body.

8. A gable edge profile according to any preceding claim wherein the profile comprises a depending leg which, in use, extends downwardly from the body.

9. A gable edge profile according to claim 8 wherein the leg extends from a central region of the underside of the outer body part and is adapted to be spaced from a rafter in use.

10. A gable edge profile substantially as hereinbefore described with reference to and as illustrated in the accompanying drawing.

11. A fixing arrangement for fixing a glazing panel in a glazed roof assembly comprising an elongate capping member adapted to overlie a longitudinal edge of the glazing panel, an elongate carrier
member having a central portion and a pair of wings extending laterally from respective opposite longitudinal sides of the central portion, a wing being adapted to underlie the longitudinal edge of the glazing panel, and fixing means for connecting the capping member to the carrier member, the arrangement comprising a gable edge profile according to any preceding claim fitted to a wing of the carrier member.
Application No: GB0611544.8
Claims searched: 1-12

Examiner: Mr Marc Collins
Date of search: 8 November 2006

Patents Act 1977: Search Report under Section 17

Documents considered to be relevant:

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<td>X</td>
<td>1-4, 7, 9 and 12</td>
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Field of Search:
Search of GB, EP, WO & US patent documents classified in the following areas of the UKC

E11, E1R

Worldwide search of patent documents classified in the following areas of the IPC

E04D; E06B

The following online and other databases have been used in the preparation of this search report

EPODOC, WPI