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(54) **Window and door profiles**

Tür- und Fensterprofile

Profilsés pour portes et fenêtres

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Description

[0001] The invention relates to window and door profiles.

[0002] Plastics windows and doors are commonly manufactured by securing together, eg by welding, side frame members known as profiles. These profiles are commonly hollow extrusions. Frequently, the hollow extrusions require reinforcement, which is usually in the form of a metal box section (cf. DE 29705292 U and DE 1281664 B). This has the added advantage that items of architectural hardware can be secured to the profiles by fixing members which extend into the metal reinforcements.

[0003] The invention provides a profile for a window or door, the profile comprising a hollow elongate member, characterised in that the hollow elongate member comprises an extrusion having a first area shaped to receive a metal fixing plate and a second area shaped to receive a reinforcing box section and wherein the first and second area are separated by lateral location ribs.

[0004] We have appreciated that for some applications, reinforcement in the form of a box section may not be necessary, so by providing an extrusion that can receive a fixing plate, components of architectural hardware can still be securely attached, but without the cost associated with the provision of reinforcing box sections. The extrusion is shaped such that it can receive a reinforcing box section, where reinforcement is desirable.

[0005] The invention includes a window or door when constructed using a plurality of profiles as defined above.

[0006] By way of example, a specific embodiment of the invention will now be described, with reference to the accompanying drawings, in which :-

Figure 1 is a cross-sectional view through a prior art window profile;

Figure 2 is a cross-sectional view through an embodiment of window profile according to the invention; and

Figures 3 and 4 are further cross-sectional views showing other ways in which the profile according to this embodiment of the invention may be used.

[0007] Figure 1 shows a conventional profile comprising a hollow plastics extrusion 10 reinforced by an aluminium box section 11. The box section 11 fulfils two purposes. Firstly, it provides a reinforcement for the plastics extrusion and for certain sizes of profile reinforcement is a compulsory requirement of the relevant building regulation. Secondly, the box section 11 can be arranged to receive bolts or screws, thus enabling items of architectural hardware to be fastened to the profile more securely than would be the case if the bolts or

screws merely extended into the plastics material. These items may include, for example, hinges, locks, bolts or espagnolettes.

[0008] We have developed a much more versatile profile as shown in Figure 2. The profile again comprises an elongate hollow extrusion 12, but the central hollow region is divided into a first region 13 and a second region 14 by elongate location ribs 15.

[0009] For situations where reinforcement is unnecessary, but architectural hardware is still to be attached, an elongate fixing plate 16 is inserted into the region 13.

[0010] In some situations, reinforcement may still be necessary, in which case a box section 17 can be inserted into the region 14, as shown in Figure 3.

[0011] For yet more applications, it may be sufficient to utilise a box section reinforcement 17, without the plate 16, as shown in Figure 4.

Claims

1. A profile for a window or door, the profile comprising a hollow elongate member (10), **characterised in that** the hollow elongate member (10) comprises an extrusion having a first area (13) shaped to receive a metal fixing plate (16) and a second area (14) shaped to receive a reinforcing box section (17) and wherein the first (13) and second (14) areas are separated by lateral location ribs (15).
2. A profile as claimed in claim 1 and comprising a metal fixing plate (16) inserted into the first area (13).
3. A profile as claimed in claim 1 or 2 and comprising a reinforcing box section (17) inserted into the second area (14).
4. A window or door constructed using a plurality of profiles as claimed in claim 1.
5. A window or door according to claim 4 comprising one or more profiles as claimed in claim 2 and one or more profiles as claimed in claim 3.

Patentansprüche

1. Fenster- oder Türprofil, wobei das Profil ein hohles, längliches Teil (10) aufweist, **dadurch gekennzeichnet, dass** das hohle, längliche Teil (10) eine Extrusion aufweist, die einen ersten Bereich (13) hat, der so geformt ist, um eine metallische Fixierungsplatte (16) aufzunehmen, und die einen zweiten Bereich (14) hat, der so geformt ist, um ein Verstärkungskastenprofil (17) aufzunehmen, wobei der erste Bereich (13) und der zweite Bereich (14) durch seitliche Stellrippen (15) getrennt sind.

2. Ein Profil, wie in Anspruch 1 beansprucht ist, welches eine metallische Fixierungsplatte (16), die in dem ersten Bereich (13) eingesetzt ist, aufweist.
3. Ein Profil, wie in Anspruch 1 oder 2 beansprucht ist, welches ein Verstärkungskastenprofil (17), das in dem zweiten Bereich (14) eingesetzt ist, aufweist. 5
4. Ein Fenster oder eine Tür, die durch die Verwendung einer Vielzahl von Profilen - wie in Anspruch 1 beansprucht - hergestellt werden. 10
5. Ein Fenster oder eine Tür gemäß Anspruch 4, die ein oder mehrere Profile - wie in Anspruch 2 beansprucht - und ein oder mehrere Profile - wie in Anspruch 3 beansprucht - aufweisen. 15

Revendications

1. Profilé pour fenêtre ou porte, le profilé comprenant un élément allongé creux (10), **caractérisé en ce que** l'élément allongé creux (10) est constitué d'un élément extrudé ayant une première zone (13) conformée pour recevoir une plaque métallique de fixation (16) et une seconde zone (14) conformée pour recevoir une section de boîte de renforcement (17) et dans lequel les première (13) et seconde (14) zones sont séparées par des nervures latérales de positionnement (15). 20 25 30
2. Profilé selon la revendication 1, comprenant une plaque métallique de fixation (16) insérée dans la première zone (13). 35
3. Profilé selon la revendication 1 ou 2, comprenant une section de boîte de renforcement (17) insérée dans la seconde zone (14). 40
4. Fenêtre ou porte construite en utilisant une pluralité de profilés selon la revendication 1. 45
5. Fenêtre ou porte selon la revendication 4, comprenant un ou plusieurs profilés selon la revendication 2 et un ou plusieurs profilés selon la revendication 3. 50

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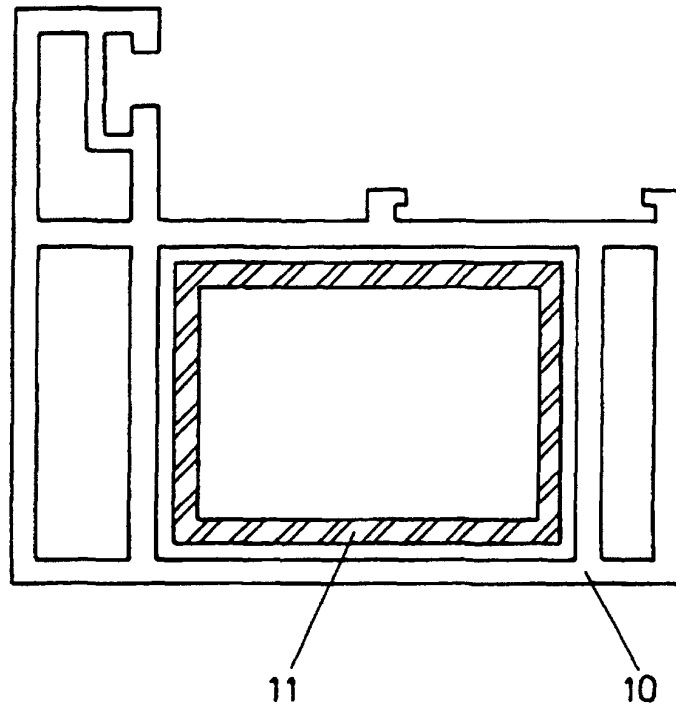


FIG. 1

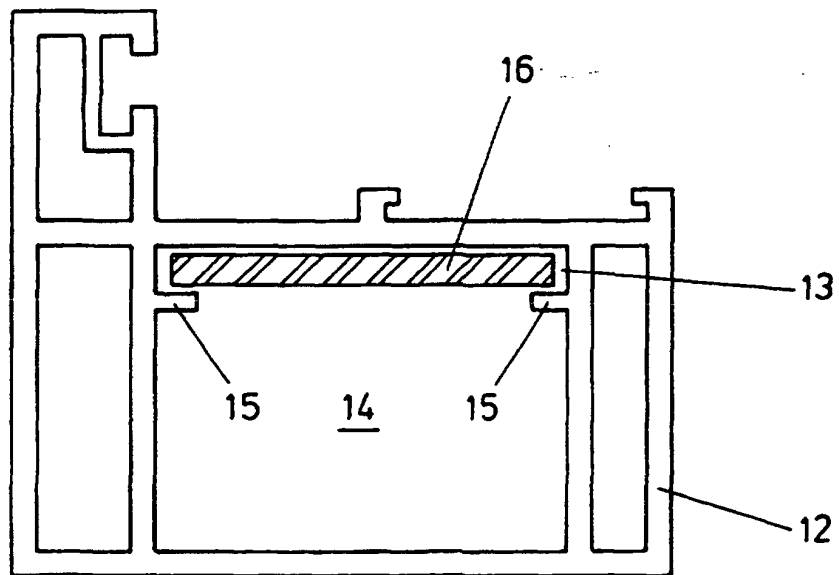


FIG. 2

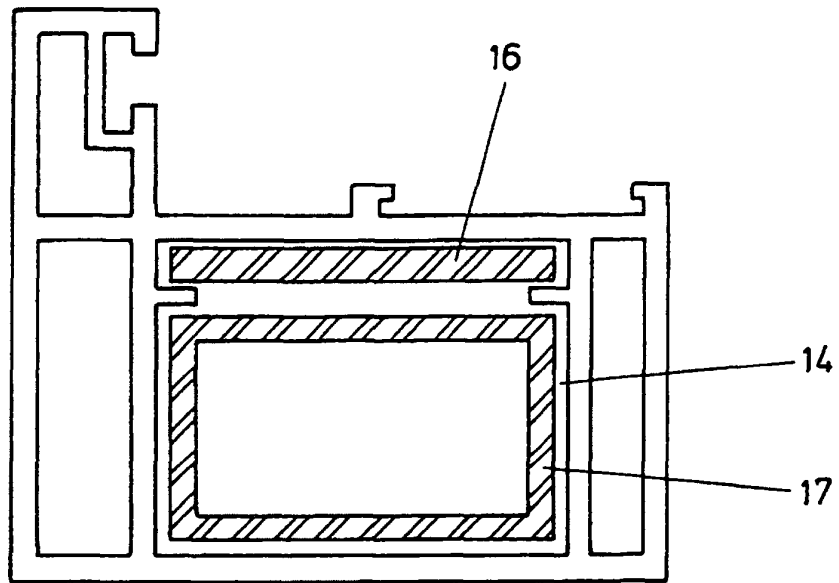


FIG. 3

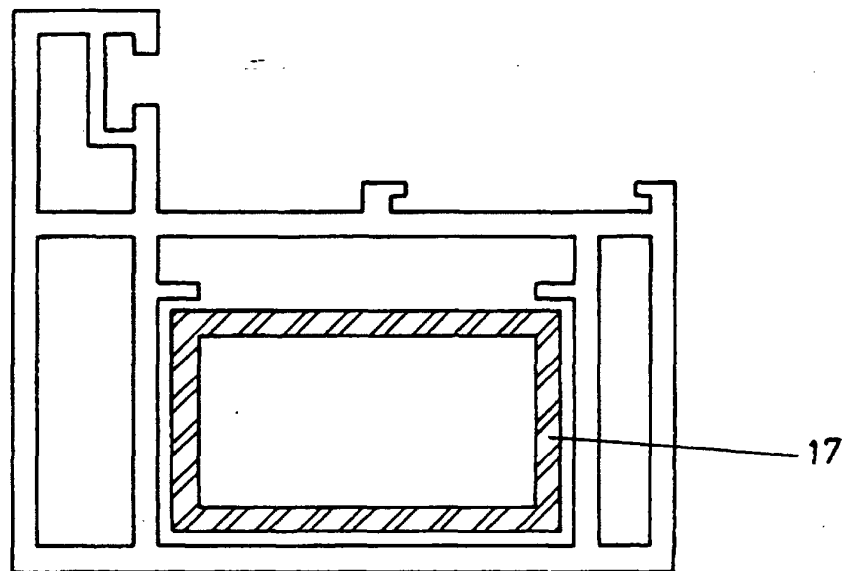


FIG. 4