

Title (en)

Process for the continuous manufacture of external reinforcement shells for self-supporting composite panels.

Title (de)

Verfahren zur kontinuierlichen Herstellung von Wannen als aussenliegende Bewehrung für freitragende Verbundbauplatten.

Title (fr)

Procédé pour la fabrication en continu de renforcements extérieurs en forme d'auge pour panneaux composites autoportants.

Publication

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Application

EP 82110846 A 19821124

Priority

DE 3147087 A 19811127

Abstract (en)

1. A process for the continuous production of trough-like members from a material having high tensile strength and a high modulus of elasticity, as external reinforcement for self-supporting composite building panels with a filling material of low tensile strength and a low modulus of elasticity, further comprising shear anchors which are provided in the bottom of the trough-like member, in the form of apertures which have funnel-shaped edges projecting above the inside of the trough-like member, characterised by the following steps : (a) a channel-shaped member is continuously produced by rolling from a rolled-up strip material ; (b) during the longitudinal movement of the channel-shaped member, the apertures with the funnel-shaped edges projecting above the future inside of the trough-like member are continuously pressed at least in the bottom of the channel-shaped member ; (c) upon continued longitudinal movement of the channel-shaped member, a foil, for example aluminium foil, is stuck on to the future outside of the trough-like member, the foil being drawn from a roll and closing off the apertures ; (d) upon continued longitudinal movement of the channel-shaped member, portions of the length of the desired composite building panel are then cut off the channel-shaped member ; (e) the portions of channel-shaped member which have been cut to size are turned in order individually or in a plurality thereof to form the bottom of a trough-like member with bending-resistant limb portions of the composite building panel ; (f) when a plurality of the portions of the channel-shaped member, forming the bottom of the trough-like member, are used, said portions are connected to each other flush at their downwardly projecting, butting limb portions, by for example roller seam or spot welding, screwing or riveting ; (g) the one-piece or multi-piece bottom is joined to a frame forming the side walls of the trough-like member by roller seam or spot welding, screwing or riveting.

Abstract (de)

Die Erfindung betrifft eine freitragende Verbundbauplatte für Doppelböden, Decken, Dächer etc., die als außenliegende Bewehrung eine Wanne aus einem zugfesten Werkstoff enthält, in deren Hohlraum ein druckfester Füllwerkstoff, z.B. Anhydrit oder Beton, eingebracht ist. Trichterförmige Durchbrüche 13 im Wannenboden 14 oder an dessen Innenseite angeklebtes körniges Material (Quarzsand) bewirken den Verbund zwischen der Wanne 11B und dem druckfesten Füllwerkstoff 12. Die Wanne hat man bisher im Tiefziehverfahren hergestellt, was nicht wirtschaftlich ist, insbesondere wenn die Verbundbauplatten große Spannweiten aufweisen sollen. Die Erfindung steht vor, die Wanne 11B aus streifenförmigen Profiltteilen, z.B. rinnenförmigen Blechprofilstücken 17 zusammenzubauen und an der Unterseite des Wannenbodens 14 senkrecht nach unten stehende, biegesteife Stege 18 vorzusehen. Diese streifenförmigen Profiltteile sind relativ preiswert und zugleich erreicht man eine Verbundbauplatte mit relativ großem Trägheits- und Widerstandsmoment. Ihre hauptsächliche Anwendung findet die Erfindung bei fabrikmäßig vorgefertigten Verbundbauplatten für Doppelböden, Dächer und Decken in Gebäuden.

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E04C 2/50

IPC 8 full level

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CPC (source: EP)

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