

Title (en)  
Hollow or laminated wall

Title (de)  
Hohl- oder Mehrschichtwandelement

Title (fr)  
Mur creux ou multicouche

Publication  
**EP 2166178 A2 20100324 (DE)**

Application  
**EP 09011922 A 20090918**

Priority  
DE 102008048425 A 20080923

Abstract (en)  
The spacer (1) has three bars (2) connected with each other using a connecting device (3), where each bar has a respective supporting section (5). The supporting sections form a supporting plane (8) of the bars. The connecting device is provided with a ring, through which the bars extend such that the bars are firmly connected with the ring, where the ring is arranged in a longitudinal direction of the bars. The ring and the bars are formed from stainless steel or glass fiber reinforced plastic. An independent claim is also included for a method for producing hollow and multi layer walls.

Abstract (de)  
Abstandhalter, vorzugsweise für die Herstellung von Hohl- oder Mehrschichtwänden, mit wenigstens drei Stäben, die miteinander verbunden sind und jeder Stab zumindest einen Stützabschnitt aufweist und die Stützabschnitte der drei Stäbe voneinander beabstandet sind, um dadurch eine Stützebene zu bilden.

IPC 8 full level  
**E04G 11/18** (2006.01); **B28B 23/02** (2006.01); **E04C 2/04** (2006.01)

CPC (source: EP US)  
**B28B 23/028** (2013.01 - EP US); **E04C 2/044** (2013.01 - EP US); **E04G 11/18** (2013.01 - EP US); **E04C 2002/047** (2013.01 - EP US)

Cited by  
CN106696076A; DE102013005470A1; DE102013005470B4; EP2522788A3; EP3068962A4; US9885180B2; WO2018128613A1; US9957713B2; US10167633B2; US10704260B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2166178 A2 20100324**; **EP 2166178 A3 20130828**; **EP 2166178 B1 20170830**; DE 102008048425 A1 20100401; DK 2166178 T3 20171120; RU 2009135671 A 20110327; RU 2533784 C2 20141120; US 2010071314 A1 20100325; US 8276339 B2 20121002

DOCDB simple family (application)  
**EP 09011922 A 20090918**; DE 102008048425 A 20080923; DK 09011922 T 20090918; RU 2009135671 A 20090917; US 58617309 A 20090917