

Title (en)  
CONSTRUCTION PANEL WITH LARGE SURFACE

Publication  
**EP 0146844 A3 19870311 (DE)**

Application  
**EP 84114803 A 19841205**

Priority  
DE 3345592 A 19831216

Abstract (en)  
[origin: ES283405U] Webs for reducing bending in board-shaped construction elements when in use have their main direction of load perpendicular to the board plane. The devices have a sandwich of at least one first material layer, one second material layer, and one third material layer. The third material layer lies between the other two material layers and has a substantially higher coefficient of heat expansion than the other two material layers, so as to set up contracting biasing forces in the third material layer. The third material is made of a sheet metal strip. The two other materials are made of thermosetting plastic, which sets at a temperature considerably above the working temperature of the construction element.

IPC 1-7  
**E04G 9/05; E04C 2/22**

IPC 8 full level  
**E04G 9/02** (2006.01); **E04C 2/22** (2006.01); **E04G 9/05** (2006.01); **E04G 9/10** (2006.01)

CPC (source: EP KR US)  
**E04G 9/05** (2013.01 - EP US); **E04G 9/10** (2013.01 - KR); **E04G 2009/028** (2013.01 - EP US)

Citation (search report)

- [X] FR 2265538 A1 19751024 - METAL DEPLOYE [FR]
- [X] FR 1383161 A 19641224
- [X] FR 1434373 A 19660408 - COMMISSARIAT ENERGIE ATOMIQUE
- [A] FR 2225989 A5 19741108 - NIKKEN KAGAKU K K [JP]
- [A] FR 2275605 A1 19760116 - ALLARD FRANCOIS [FR]
- [A] GB 1471661 A 19770427 - REED MALIK LTD
- [A] FR 2339032 A1 19770819 - CAMUS RAYMOND [FR]

Cited by  
FR2655678A1; EP0250730A1; US6148575A; FR2685026A1; EP0479629A1; FR2667341A1; EP0501879A1; FR2673223A1; WO8705353A1; WO9749881A1

Designated contracting state (EPC)  
AT BE CH FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0146844 A2 19850703; EP 0146844 A3 19870311; EP 0146844 B1 19890503**; AT E42789 T1 19890515; AU 3644584 A 19850620; AU 576339 B2 19880825; CA 1220357 A 19870414; DE 3345592 A1 19850801; DE 3345592 C2 19930527; ES 283405 U 19850501; ES 283405 Y 19851216; JP H0457827 B2 19920914; JP S60148956 A 19850806; KR 850004796 A 19850727; KR 930009604 B1 19931007; NO 163197 C 19900425; NO 845041 L 19850617; US 4776556 A 19881011

DOCDB simple family (application)  
**EP 84114803 A 19841205**; AT 84114803 T 19841205; AU 3644584 A 19841210; CA 469660 A 19841207; DE 3345592 A 19831216; ES 283405 U 19841213; JP 26309184 A 19841214; KR 840007961 A 19841214; NO 845041 A 19841214; US 92686286 A 19861104