

21 NOV 2003

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
28 November 2002 (28.11.2002)

PCT

(10) International Publication Number
WO 02/095154 A1(51) International Patent Classification⁷: E04B 1/32, 7/20,
E04C 2/26, 2/42, E04G 9/10, 11/04

(21) International Application Number: PCT/AU02/00642

(22) International Filing Date: 23 May 2002 (23.05.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
PS 1670 23 May 2001 (23.05.2001) AU

(71) Applicant and

(72) Inventor: KILLEN, Andrew [AU/AU]; 218 Scenic Drive,
Merewether, New South Wales 2291 (AU).(74) Agent: GRIFFITH, Hack; P.O. Box 4164, Sydney, NSW
2001 (AU).(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

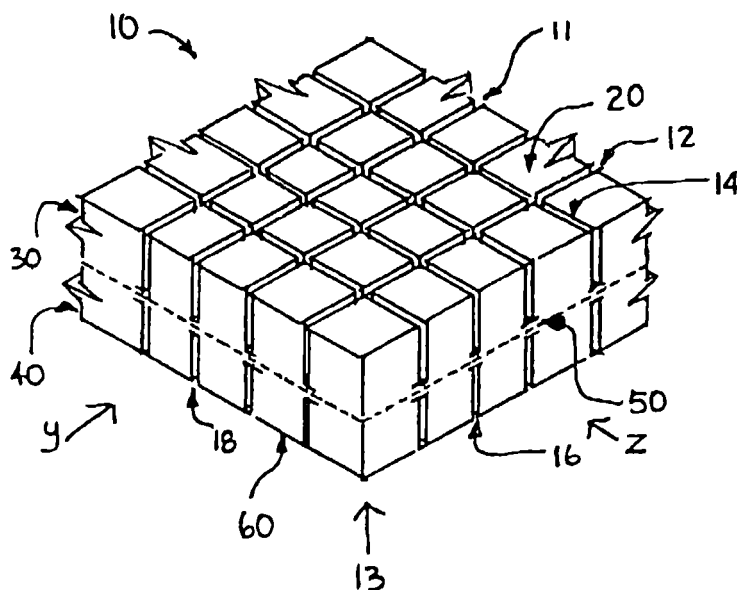
Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

162162

(54) Title: A STRUCTURE



(57) Abstract: A three-dimensional constructional element (10) is shown having opposing and substantially planar panels (30, 40) mounted on opposing surfaces of a flexible planar member in the form of a flexible mesh material layer (52) therefore making a composite sheet of three layers. Panel (30) includes transverse grooves (12, 14) formed therein and panel (40) includes transverse grooves (16, 18) formed therein. The structure is deformable about each groove (12, 14, 16, 18). In a preferred embodiment the panels (30, 40) are divided into many segments defined by the transverse grooves to allow the constructional element to be deformed so that one of the exterior surfaces of panel (30) is concave while the opposing exterior surface of panel (40) is convex. Also disclosed herein is a method of forming a curved surface structure including the steps of deforming the constructional element (10) into a desired position and securing

the element (10) into that position by introducing a grouting material (74, 94) thereonto so that the grouting material can enter the grooves (12, 14, 16, 18) to rigidly affix the element (10).

WO 02/095154 A1



ACTION