



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

<b>(51) International Patent Classification <sup>6</sup> :</b> <b>B23B 3/12, 31/12, F24J 2/00, E04B 1/74</b>	<b>A3</b>	<b>(11) International Publication Number:</b> <b>WO 98/08640</b> <b>(43) International Publication Date:</b> 5 March 1998 (05.03.98)
<b>(21) International Application Number:</b> PCT/GB97/02315 <b>(22) International Filing Date:</b> 28 August 1997 (28.08.97) <b>(30) Priority Data:</b> 9617931.2                      28 August 1996 (28.08.96)                      GB <b>(71)(72) Applicant and Inventor:</b> MCMAHON, Nicholas [GB/GB]; Apartment C, 55 St. John Street, London EC1M 4DT (GB). <b>(74) Agent:</b> BERESFORD, Keith, Denis, Lewis; Beresford & Co., 2-5 Warwick Court, High Holborn, London WC1R 5DJ (GB).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).  <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>  <b>(88) Date of publication of the international search report:</b> 4 June 1998 (04.06.98)
<b>(54) Title:</b> STRUCTURE COMPRISING HONEYCOMB CORE AND OUTER SKIN AND METHOD FOR ITS FABRICATION		
<b>(57) Abstract</b>		
<p>A honeycomb core (2) is bonded to a planar outer skin (10) by forming a pool of adhesive (24) on a surface of the outer skin and placing the honeycomb core (2) within the adhesive pool (24). In the resulting structure, a continuous layer of adhesive of substantially uniform depth is formed within the cells (8) of the honeycomb core (2). The depth of the adhesive and the size of the cells may be chosen so that the adhesive provides a lens effect on light passing through. The structures may be used for light, heat or sound transmission/retardation. In particular, a transparent structure can be provided with optical consistency between the cells of the honeycomb core. This can be used to provide large panels of glass, with the honeycomb core increasing the panels' strength and hence allowing the panels to be made in sizes larger than previously possible and to be used for new applications.</p>		

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 97/02315

A. CLASSIFICATION OF SUBJECT MATTER  
 IPC 6 B32B3/12 B32B31/12 F24J2/00 E04B1/74

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B32B B29D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 294 055 A (ANDRESEN DONALD D) 13 October 1981  see column 6, line 9 - line 66 see figures	1-3, 9-12, 17, 18, 34-37, 40-43, 49-51, 53-57, 60-64, 67-69
Y	---	52, 65, 66
Y	DE 41 04 556 A (ETERNIT WERKE HATSCHEK L ; POSCHACHER NATURSTEINWERKE AG (AT)) 12 September 1991 see abstract  ---	52, 65, 66
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Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

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Date of the actual completion of the international search

4 December 1997

Date of mailing of the international search report

07.04.98

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 97/02315

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 478 662 A (CANELLOS DEMITRIOS) 23 October 1984  see column 6, line 54 - column 7, line 43 see figure 2  ---	1-3,11, 12,40, 41,43, 53-55,57
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X	US 3 895 152 A (CARLSON JON R ET AL) 15 July 1975 see column 2, line 11 - column 4, line 59 see figures  ---	21,22, 25,26
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# INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 97/ 02315

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Claims 1-28, 34-69
2. Claims 29 and 30
3. Claims 31-33

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
  
1-28, 34-69

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 97/02315

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