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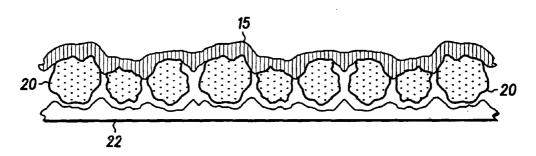
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(54) Title: LOW-PRESSURE LAMINATED CERAMIC DEVICES



(57) Abstract: An intermediate low-pressure laminated ceramic device is formed from a plurality of layers of unfired ceramic material (20) each including ceramic particles in an organic binder. A polymer interfacial layer (22) having a glass transition temperature such that it flows at a temperature below a temperature required for the unfired ceramic layers to substantially deform, is deposited on one surface of each of the unfired ceramic layers. The unfired ceramic layers are stacked with an interfacial layer positioned between adjacent unfired ceramic layers in the stack. The stack is heated to a temperature greater than the glass transition temperature of the interfacial layers and a pressure is applied to the heated stack below approximately 1200 psi (8,3 MPa) to fixedly bond the plurality of layers in the stack together.



INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 H01C17/065 C03E H01F17/00 C03B29/00 H01G4/12 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) B28B H05K CO3B B05D HO1G HO1F B23B G01N C08K B32B C04B HO1C 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) EPO-Internal, PAJ, WPI Data C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Category 6 Citation of document, with indication, where appropriate, of the relevant passages US 5 897 723 A (TATUMOTO HIROHIKO ET AL) 1,10 X 27 April 1999 (1999-04-27) column 10, line 46-51; claims 1,8 1,8,10 column 1, line 51-57 X the whole document 3 - 7.9PATENT ABSTRACTS OF JAPAN 3 - 7, 9Y vol. 014, no. 458 (C-0766) 3 October 1990 (1990-10-03) & JP 02 184558 A (NIPPON SHOKUBAI KAGAKU KOGYO CO LTD), 19 July 1990 (1990-07-19) abstract Y EP 0 419 757 A (ROCKWELL INTERNATIONAL 2-4,6,9CORP) 3 April 1991 (1991-04-03) claims 5,6,12 -/--Further documents are listed in the continuation of box C. Patent family members are listed in annex. χ ° Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention *E* earlier document but published on or after the international *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled "O" document referring to an oral disclosure, use, exhibition or other means in the art. *P* document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 01/09/2003 20 August 2003 Authorized officer Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016

Dessaux, C

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