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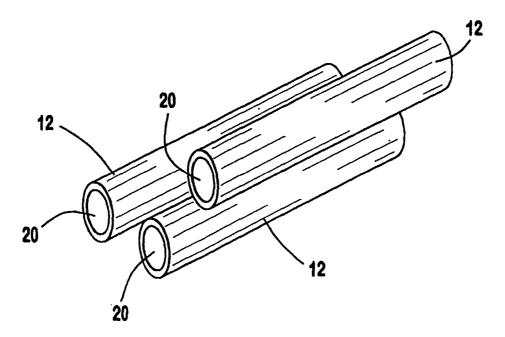
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(54) Title: BENEFICIATED FIBER, COMPOSITE AND METHOD FOR ITS MANUFACTURE



(57) Abstract: A beneficiated fiber (12) and composite including a fiber having a lumen with voids (20). A suspension including a bonding agent, chemical blowing agent, and catalyst is drawn into the lumen by a capillary action to beneficiated the fiber. The beneficiated fiber may be imbedded with a polymeric material to form the composite. The natural voids of the lumen are preserved by the suspension causing the fiber to maintain natural density and strength characteristics.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B29C70/10 C08K7/02

B32B27/18

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

B. FIELDS SEARCHED

IPC 7

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, WPI Data, PAJ

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 494 748 A (SPEHNER JEAN L) 27 February 1996 (1996-02-27)	1,6-9, 11-33, 35,36, 42-55, 57,60, 64,65, 68,69, 71, 78-89, 91,92, 95,98
	column 2, line 9 - line 15 column 3, line 55 -column 4, line 30; claim 5; example 7/	36,30

χ Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: 'A' document defining the general state of the art which is not considered to be of particular relevance 'E' earlier document but published on or after the international filling 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) 'O' document referring to an oral disclosure, use, exhibition or other means 'P' document published prior to the international filling date but later than the priority date claimed	 '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 invention '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 '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 in the art. '&' document member of the same patent family
Date of the actual completion of the international search 1 April 2004	Date of mailing of the international search report $08/04/2004$
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	Van Wallene, A

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	cition) DOCUMENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
Category °	Citation of document, with indication, where appropriate, of the relevant passages	nelevant to claim No.
A	DE 41 07 617 A (MESSERSCHMITT BOELKOW BLOHM) 10 September 1992 (1992-09-10) the whole document	2-5,58, 59,70, 72-74

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