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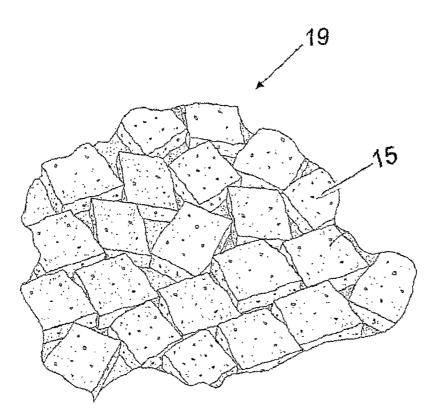
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[Continued on next page]

(54) Title: MULTIDENSITY LINER/INSULATOR HAVING REINFORCING RIBS



(57) Abstract: A liner/insulator (2) including a base layer of fibrous material (4) and a plurality of ribs of fibrous insulation material (6) thermally bonded to said base layer. The fibrous material is constructed of either (a) thermoplastic polymer staple fibers and thermoplastic bicomponent fibers,(b) glass staple fibers and thermoplastic bicomponent fibers and (c) a combination of (a) and (b).

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B32B5/26 B32B5/14 D04H1/54 B32B3/30 B29C59/02 B29C59/04 B60R13/08

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

B. FIELDS SEARCHED

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

C. DOCUM	NTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
E	WO 2005/065996 A (OWENS CORNING; TILTON, JEFFREY, A; ROCKWELL, ANTHONY, L) 21 July 2005 (2005-07-21) claims 1-3,6,7,9,10,13-17,19-30,36; figures 1-3,7,8	1-3,5, 9-21, 32-36	
X	US 5 660 908 A (KELMAN ET AL) 26 August 1997 (1997-08-26) cited in the application claims 1,3-5,7,14; figures 2,3	1-3,5, 15-17, 19-21, 33-35,37	
X	US 6 572 723 B1 (TILTON JEFFREY ALLAN ET AL) 3 June 2003 (2003-06-03) cited in the application claims 1,-4,12-16; figures	37	
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 X Further documents are listed in the continuation of box C. 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 	"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 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.
later than the priority date claimed Date of the actual completion of the international search	"&" document member of the same patent family Date of mailing of the international search report
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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	Authorized officer Derz, T

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.							
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Information on patent family members

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