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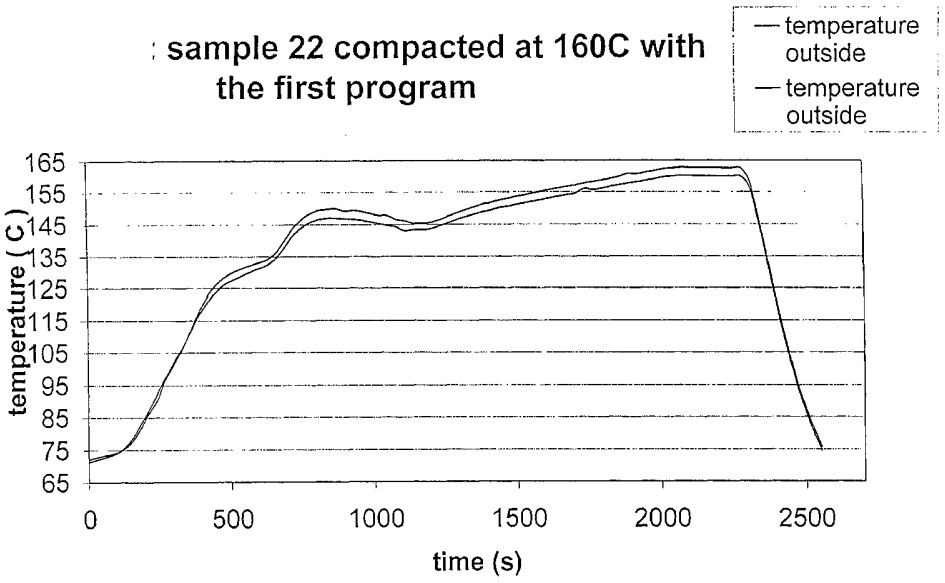
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(54) Title: AMORPHOUS POLYMER ARTICLE



(57) Abstract: The present invention provides an amorphous polymer article produced by hot compaction and a method of producing the same. The article is heated to a temperature and maintained at a pressure sufficient to cause softening of the polymer strands to sufficient a degree to allow bonding to adjacent fibres to take place without actually transforming the polymer into a liquid state.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B29C43/00 //D04H1/54

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)
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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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 997 386 A (KITA HIROAKI ET AL) 14 December 1976 (1976-12-14) claims; examples	1-20
X	US 5 628 946 A (HINE PETER J ET AL) 13 May 1997 (1997-05-13) cited in the application column 4, line 14 - line 62; claims; examples	1,2, 13-20
A	US 4 243 368 A (GARABEDIAN ARMEN) 6 January 1981 (1981-01-06) column 14, line 53 -column 15, line 39; figures 3,4; examples	1-20

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA	Authorized officer
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In ›nal Application No
PCT/GB 02/02725

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3997386 A	14-12-1976	JP 50151971 A	06-12-1975
		CH 578924 A5	31-08-1976
		DE 2520457 A1	04-12-1975
		FR 2272810 A1	26-12-1975
		GB 1490437 A	02-11-1977
US 5628946 A	13-05-1997	US 6277773 B1	21-08-2001
		US 6017834 A	25-01-2000
		AT 124644 T	15-07-1995
		CA 2081469 A1	08-09-1992
		DE 69203310 D1	10-08-1995
		DE 69203310 T2	16-11-1995
		EP 0531473 A1	17-03-1993
		ES 2074881 T3	16-09-1995
		WO 9215440 A1	17-09-1992
		GB 2253420 A ,B	09-09-1992
		JP 3233932 B2	04-12-2001
		JP 6502227 T	10-03-1994
		JP 2002054068 A	19-02-2002
US 4243368 A	06-01-1981	US 4353855 A	12-10-1982
		US 4336221 A	22-06-1982
		US 4334850 A	15-06-1982
		US 3383265 A	14-05-1968