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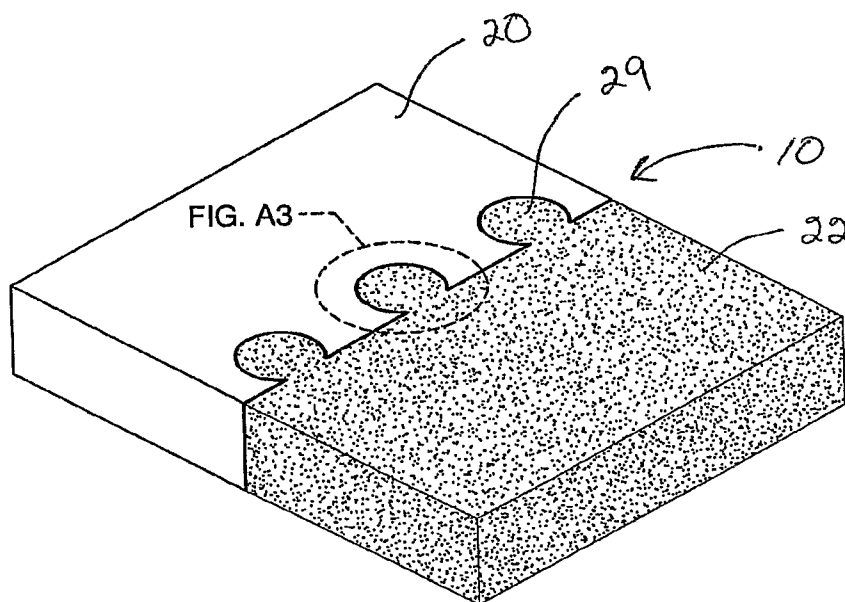
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(54) Title: INJECTION MOLDING PROCESS FOR MOLDING MECHANICAL INTERLOCKS BETWEEN MOLDED COMPONENTS



(57) Abstract: A two-shot or multi-shot multi-material injection molding process is provided. The process allows dissimilar materials to be injection molded to form a single, injection molded part by creating a structural interlock between the materials to prevent the materials from separating. The structural interlock is formed by forming at least one interlock cavity adjacent to an interfacial surface of a first portion of a molded part molded from a first material, and injecting a second, different material into the mold so that the second material flows into the interlock cavity and fills it. Solidification of the second material in the interlock cavity formed by the first material creates the structural interlock between the two materials.

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INTERNATIONAL SEARCH REPORT

International application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC: **B29C 45/14**(2006.01),**45/16**(2006.01)

USPC: 264/255,274,246,247,273

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)

U.S. : 264/255,274,246,247,273

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 practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 5008060 (KANAI et al) 16 April 1991 (16.04.1991), see entire document.	1,2,3,5,6,7,8,13,14,15,16,17,18,19,20,21 ----- 4,9,10,11,12,22-25



Further documents are listed in the continuation of Box C.



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"A"	document defining the general state of the art which is not considered to be of particular relevance	"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
"E"	earlier application or patent published on or after the international filing date	"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
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"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

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