

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 March 2002 (07.03.2002)

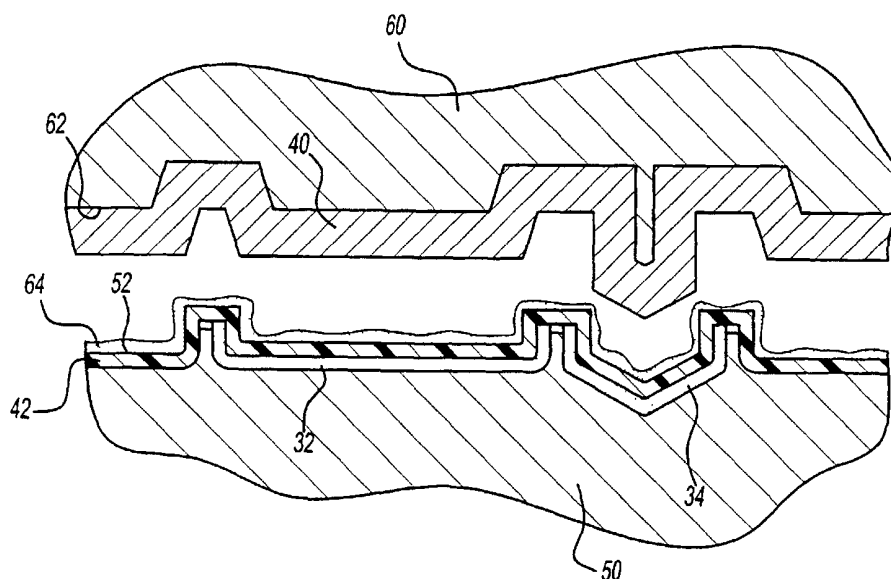
PCT

(10) International Publication Number
WO 02/18478 A3

- (51) International Patent Classification⁷: **B29C 51/14** (74) Agent: ASHER, Robin, W.; Clark Hill PLC, Suite 3500, 500 Woodward Avenue, Detroit, MI 48226-3435 (US).
// 43/18, B60R 13/02
- (21) International Application Number: PCT/US01/27271 (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (22) International Filing Date: 31 August 2001 (31.08.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/229,053 31 August 2000 (31.08.2000) US
- (71) Applicant (*for all designated States except US*): INTIER AUTOMOTIVE, INC. [CA/CA]; 337 Magna Drive, Aurora, Ontario L4G 7K1 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): KAMINSKI, Alex, J. [US/US]; 145 W. Shoesmith, Haslett, MI 48840 (US). MUENCH, Michael, W. [US/US]; 5009 Culver, Brighton, MI 48116 (US). O'BRIEN, Timothy, F. [US/US]; 1321 Corey Cove, White Lake, MI 48383 (US).
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: PROCESS OF INTEGRATING DECORATIVE LAYERS ONTO AN INTERIOR TRIM ARTICLE



(57) Abstract: The invention is a method for manufacturing an article having multiple layers. These multiple layers have differing surface areas. The method incorporates the use of a mold assembly having a first mold portion (50) and a second mold portion (60). The two mold portions define a mold cavity having first and second mold surfaces (52, 62). The first and second mold surfaces define first and second surface areas, respectively. The method includes the steps of placing a first layer (32, 34) of material on the first mold such that the first layer of material extends along a portion of the first mold surface (52). A second layer is applied to the first mold surface (52) over the first mold cavity and the first layer. The second layer extends over the first layer and the entire first mold surface (52). A pressure is then applied within the mold cavity to form the article.



WO 02/18478 A3



(88) Date of publication of the international search report:
20 June 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/27271

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B29C51/14 //B29C43/18, B60R13/02

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)

IPC 7 B29C B60R

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

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 571 355 A (KORNYLO WALTER P) 5 November 1996 (1996-11-05) column 5, line 6 -column 6, line 67; figures	1-13
X	US 5 639 329 A (VAN ERT JACK) 17 June 1997 (1997-06-17) column 3, line 7 -column 4, line 37; figures	1,8
X	EP 0 732 182 A (KASAI KOGYO KK) 18 September 1996 (1996-09-18) column 8, line 32 -column 9, line 41; figures	1,8
	--- -/--	

☒ 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 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)
- *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

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.

G document member of the same patent family

Date of the actual completion of the international search

2 April 2002

Date of mailing of the international search report

12/04/2002

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

Topalidis, A

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/27271

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 012, no. 442 (M-766), 21 November 1988 (1988-11-21) & JP 63 176132 A (TOYOTA KAKO KK), 20 July 1988 (1988-07-20) abstract -----	1,8

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/27271

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5571355	A	05-11-1996	AU 6673294 A CA 2159364 A1 WO 9425249 A1 JP 7032384 A	21-11-1994 10-11-1994 10-11-1994 03-02-1995
US 5639329	A	17-06-1997	US 5462786 A US 5674445 A	31-10-1995 07-10-1997
EP 0732182	A	18-09-1996	JP 2901051 B2 JP 8252831 A EP 0732182 A2 KR 170081 B1 US 5811053 A	02-06-1999 01-10-1996 18-09-1996 30-03-1999 22-09-1998
JP 63176132	A	20-07-1988	JP 2088391 C JP 8002589 B	02-09-1996 17-01-1996