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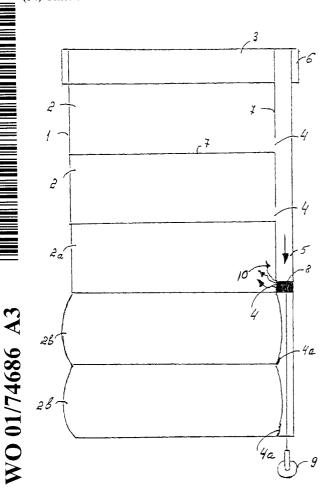
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(54) Title: METHOD FOR MANUFACTURING AIR-FILLED CUSHIONING MATERIALS



(57) Abstract: A method for manufacturing a packing cushioning material, comprising: (a) preparing a roll (3) of plastic material having a plurality of pre-prepared two-dimensional non-inflated cells (2) by connecting two sheet layers (1) of said plastic material by soldering or welding seams (7) so as to form a double plastic film consisting of said cells (2) and having a passage (5) for inflating the cells (2), each of the cells (2) having an opening (4) into said passage (5) and said cells (2) being separated from each other by these seams (7) and, optionally, by perforation; (b) inflating each of the cells (2) with a blower (9) through the passage (5) while unrolling said roll (3) and thus blowing the cells (2) up into cushions, the air pressure in the cells (2) being about the atmospheric pressure; (c) sealing each cell (2) by welding immediately after inflating it; (d) cutting pieces of the inflated output cushioning material at a required length. The invention further relates to a device for use of this method.



IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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PCT/IL 01/00290 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B65D81/05 B65D B31D5/00 B65D30/24 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) B31D IPC 7 B65D 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 C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category ° 1,2,4,5, EP 0 679 588 A (SHINWA CORP) Υ 2 November 1995 (1995-11-02) column 6, line 46 - line 5 figures 1-6 3,6 1,2,4,5, US 4 096 306 A (LARSON CURTIS L) Υ 20 June 1978 (1978-06-20) the whole document 1,2 US 5 261 466 A (KOYANAGI SHINGO) Y 16 November 1993 (1993-11-16) column 1, line 45 -column 2, line 7 figures 1-6 1.2 US 4 169 002 A (LARSON CURTIS L) Υ 25 September 1979 (1979-09-25) the whole document Patent family members are listed in annex. Further documents are listed in the continuation of box C. X Special categories of cited documents: "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 "A" document defining the general state of the art which is not considered to be of particular relevance invention *E* earlier document but published on or after the international "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 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) "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 docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means document published prior to the international filling date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 13/12/2001 5 December 2001 Authorized officer 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,

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INTERNATIONAL SEARCH REPORT

Internation .pplication No
PCT/IL 01/00290

C.(Continu	ation) DOCUMENTS CONSIDERED TO BE RELEVANT	
Category °		Relevant to claim No.
Α	DE 11 41 941 B (J. MELZER) 27 December 1962 (1962-12-27) figures 1-3	1,2
Ρ,Χ	WO 00 53501 A (NOVUS PACKAGING CORP) 14 September 2000 (2000-09-14) the whole document	1,2

3

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internation. .pplication No
PCT/IL 01/00290

Patent document cited in search report			Publication date	Patent family member(s)		Publication date	
FP	0679588	Α	02-11-1995	WO	9512532 A1	11-05-1995	
_,	0073000	••		DE	69317309 D1	09-04-1998	
				DE	69317309 T2	13-08-1998	
				DK	679588 T3	30-11-1998	
				EP	0679588 A1	02-11-1995	
				US	5581983 A	10-12-1996	
US	4096306	Α	20-06-1978	US	4169002 A	25-09-1979	
IIS	5261466	Α	16-11-1993	JP	1995032 C	22-11-1995	
	0202,00			JP	5132068 A	28-05-1993	
				JP	7005123 B	25-01-1995	
				DE	4220342 A1	07-01-1993	
				FR	2678237 A1	31-12-1992	
				GB	2257087 A	06-01-1993	
				ΙT	1254407 B	14-09-1995	
				KR	9511861 B1	11-10-1995	
US	4169002	Α	25-09-1979	US	4096306 A	20-06-1978	
DE	1141941	- В		NONE			
WO	0053501		14-09-2000	US	6209286 B1	03-04-2001	
	000001		3. 22 -300	ĀŪ	3511700 A	28-09-2000	
				WO	0053501 A1	14-09-2000	