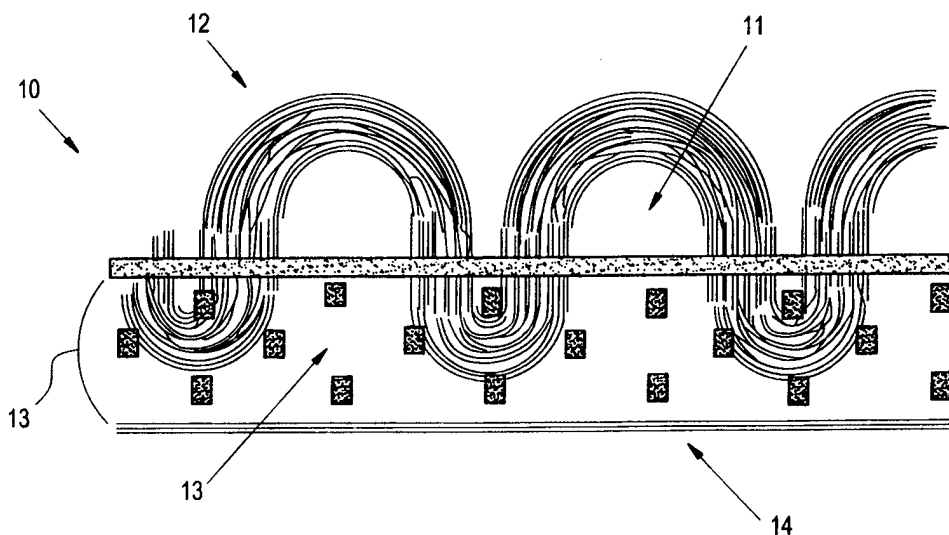




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/US98/03886 (22) International Filing Date: 27 February 1998 (27.02.98) (30) Priority Data: 60/039,411 28 February 1997 (28.02.97) US 60/039,412 28 February 1997 (28.02.97) US 60/039,584 28 February 1997 (28.02.97) US 60/039,587 28 February 1997 (28.02.97) US (71) Applicant (for all designated States except US): THE DOW CHEMICAL COMPANY [US/US]; 2030 Dow Center, Midland, MI 48674 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): BIESER, John, O. [US/US]; 2115 Banks, Houston, TX 77098 (US). DIBBERN, Joseph, A. [US/US]; R.R. 5 5324D, CR 510, Brazoria, TX 77422 (US). DIEHL, Charles, F. [US/US]; 119 Dewberry Drive, Lake Jackson, TX 77566 (US). GOINS, James, D. [US/US]; 118 Lily, Lake Jackson, TX 77566 (US). KELLEY, David, C. [US/US]; 305 Oak Forrest Drive, Angleton, TX 77515 (US). MAUGANS, Rexford, A. [US/US]; 211 Huckleberry Drive, Lake Jackson, TX 77566 (US). MCKINNEY, Osborne, K. [US/US]; 56 White Oak Court, Lake Jackson, TX 77566 (US). PENG, Lichih, R.</p>	<p>[US/US]; 7560 Saint George Boulevard, Fischer, IN 46038 (US). TURLEY, Robert, R. [US/US]; 606 Lake Road, Lake Jackson, TX 77566 (US). (74) Agent: MCKINNEY, Osborne, K.; Patent Dept., B-1211, 2301 Brazosport Boulevard, Freeport, TX 77541 (US). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 10 December 1998 (10.12.98)</p>	

(54) Title: CARPET, CARPET BACKING AND METHOD FOR MAKING SAME USING HOMOGENEOUSLY BRANCHED ETHYLENE POLYMER



(57) Abstract

The present invention pertains to carpet and methods of making carpet. In one aspect, the carpet includes (a) a primary backing (11) which has a face and a back surface, (b) a plurality of fibers (12) attached to the primary backing and extending from the face of the primary backing and exposed at the back surface of the primary backing, (c) an adhesive backing (13), (d) an optional secondary backing (14) adjacent to the adhesive backing, and (e) at least one homogeneously branched ethylene polymer. The method includes extrusion coating at least one homogeneously branched ethylene polymer onto the back surface of a primary backing to provide an adhesive backing. The method can include additional steps or procedures, either separately or in various combinations. Additional steps and procedures include washing or scouring the primary backing and fibers prior to the extrusion step, and utilizing implosion agents. The preferred homogeneously branched ethylene polymer is a substantially linear ethylene polymer. The constructions and methods described herein are particularly suited for making tufted, broad-loom carpet having improved abrasion resistance.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 98/03886

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 6 D06N7/00 D05C17/02

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 6 D06N D05C

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 96 29460 A (AMOCO CORP ;BAILEY LARRY M (US); BARRIS EDWARD (US); BRYANT ERIC J) 26 September 1996 see page 8, line 35 - page 9, line 12 see page 10, line 11 - page 11, line 10 see table I, examples 12 and 16 see page 15, line 8 - line 23 ---	1-6, 9-12
X	EP 0 688 899 A (GFF HOLDING COMPANY) 27 December 1995 see column 2, line 46 - column 3, line 16; claims 1-8 see column 11, line 30 - line 38	14
A	see column 13, line 28 - line 35 --- -/--	13



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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- "P" document published prior to the international filing date but later than the priority date claimed

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- "&" document member of the same patent family

Date of the actual completion of the international search

17 September 1998

Date of mailing of the international search report

15 October 1998 (15.10.98)

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INTERNATIONAL SEARCH REPORT

International Application No
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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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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 98/03886

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-12, 13 (partly) and 14 (partly)

Carpet comprising an homogeneously branched ethylene polymer in the pile, the primary backing and/or the adhesive backing layer.

2. Claim : 13 (partly) and 14 partly)

Carpet with an adhesive backing layer comprising an implosion agent and ethylene polymer in so far the carpet does not comprise an homogeneously branched ethylene polymer

3. Claim : 14 (partly)

Method of making a carpet by extruding a thermoplastic adhesive material on the back of the primary backing in so far the carpet does not comprise an homogeneously branched ethylene polymer or the adhesive is not of an ethylene polymer

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/03886

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