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(21) International Application Number: PCT/IB99/00409 (22) International Filing Date: 12 March 1999 (12.03.99) (30) Priority Data: PCT/US98/05041 13 March 1998 (13.03.98) US (71) Applicant (for all designated States except US): THE PROCTER & GAMBLE COMPANY [US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): DESAI, Fred [US/US]; 6383 Jamesfield Court, Fairfield, OH 45014 (US). DES- MARAI, Thomas, Allen [US/US]; 10204 Scull Road, Cincinnati, OH 45252 (US). EHRNSPERGER, Bruno, Jo- hannes [DE/DE]; Westerbachstrasse 89, D-65936 Frank- furt (DE). SCHMIDT, Mattias [DE/DE]; Altkoenigweg 3, D-65510 Idstein (DE). (74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US). (81) Designated States: AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, 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, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, 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), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.		

(54) Title: LIQUID DISTRIBUTION MATERIALS WITH IMPROVED DISTRIBUTION PROPERTIES UNDER SUB-SATURATION

(57) Abstract

The present invention is a fluid handling member having improved balance of permeability, ability to release fluid both at full and partial saturation. This member has (i) a sufficiently open structure with a permeability of at least about 1 Darcy at 100 % saturation, (ii) the ability to readily release the fluid contained therein by having a low Capillary Sorption Desorption Height (CSDH 50) of less than about 150 cm, and (iii) a permeability at 50 % of their saturation, which is more than about 14 % of the permeability at 100 % saturation. A preferred execution of such materials comprises an open celled foam material, such as of a High Internal Phase Emulsion (HIPE) type. Such materials are particularly useful for absorbent articles, such as diapers, adult incontinence articles, or feminine hygiene articles.

