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ABSTRACT OF THE DISCLOSURE

Improved hydrophilic materials, such as foams and films, are provided. These material find use in a wide variety of fluid absorbent products, especially those relating to the absorption of bodily fluids. The soft, absorbent, and resilient foams of this invention exhibit greater wet and dry mechanical strength when compared with those known in the art, as well as improved fluid wicking capacity and lower density. These improved properties are believed attributable to the incorporation into the foams of at least one polyfunctional aliphatic amine.

The provided hydrophilic materials comprise the polymeric reaction product of a mixture which comprises at least one epoxy resin, at least one amine-terminated poly(alkylene oxide), and at least one polyfunctional aliphatic amine. Methods for preparing foams and other hydrophilic materials are also provided. In general, hydrophilic materials are prepared by providing at least one epoxy resin, forming a reaction mixture by contacting the epoxy resin with at least one amine-terminated poly(alkylene oxide) and at least one polyfunctional aliphatic amine, and curing the reaction mixture.

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