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T896,051

PROCESS FOR FORMING COLLODIAL POLYMERIC DISPERSIONS FOR MAKING MICROPOROUS MATERIALS

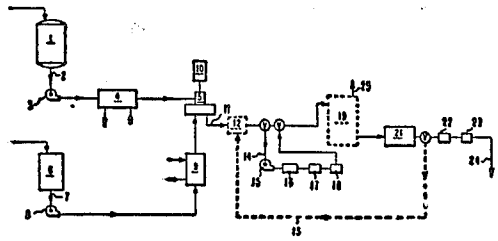
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Continuation-in-part of application Ser. No. 667,411, Sept. 13, 1967. This application Nov. 12, 1970, Ser. No. 89,136

Int. Cl. C08g *22/04, 53/18*

U.S. Cl. 260—29.2 TN

1 Sheet Drawing. 21 Pages Specification

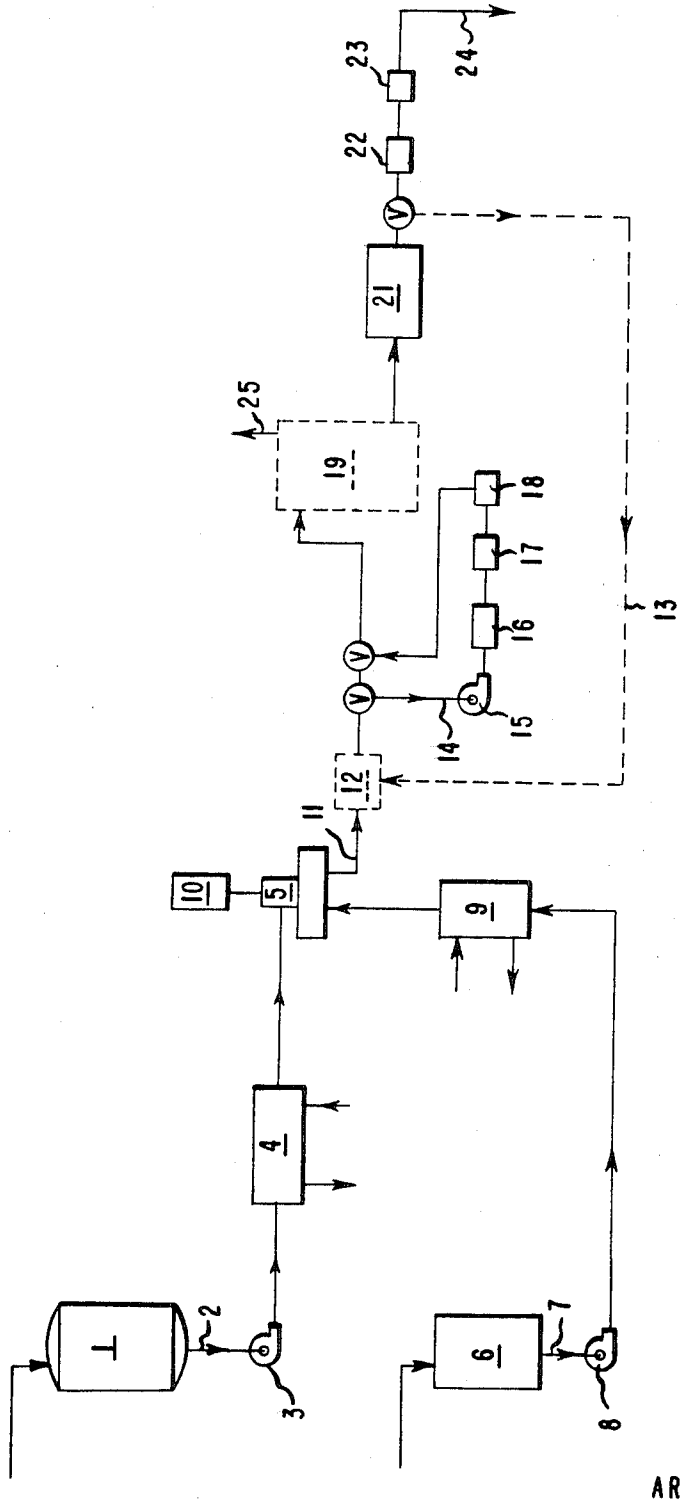


A process for forming a colloidal polymeric dispersion used in making microporous sheet material having a secant tensile modulus at 5% elongation of about 600 p.s.i. by microblending a solution of a polymeric component and a solution of a solvent and a non-solvent for the polymeric component. The microblending being achieved in about 0.5–5 seconds in a high shear mixing zone having a shear rate of 1,000–150,000 reciprocal seconds and of a stream of a solution of a polymeric component, and particularly a linear polyurethane or a blend of a linear polyurethane and poly (vinyl chloride), at about 15–60° C. and of a stream of an organic solvent and non-solvent, particularly water, at about 20–50° C. The quantity of organic solvent being about 95–25% and the quantity of non-solvent being about 5–75%. The temperature of the blend being thereafter reduced about 2–50° C. to form a colloidal polymeric dispersion having a non-solvent content of about 3–5% by weight.

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PROCESS FOR FORMING COLLOIDAL POLYMERIC DISPERSIONS FOR MAKING MICROPOROUS MATERIALS

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