

Polymerization of eco-friendly Acrylic Resin Non-Aqueous Dispersion

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Environmentally-friendly acrylic resin particles having the diameter between 0.1 and 1 μ m were prepared using non-aqueous dispersion(NAD) polymerization technique. The preparation of non-aqueous dispersions requires the use of a stabilizing agent(stabilizer) to prevent flocculation of the polymer particles. In the process of manufacturing a NAD resin, the first step is to prepare the stabilizer and the next step is the NAD polymerization by dropping an acrylic monomer to stabilizer dispersed in organic media. The effect of initiator type and its concentration, impeller rpm, etc on product viscosity and particle size was investigated in this study.