

Acrylic polyurethane dispersion according to the change in the value of R/MWCNT composites
antistatic agent manufacturing

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Even now being applied in many industries, synthetic resin and has been studied by many researchers. Water-borne polyurethane(WPU) can be used as a good material in various industrial fields, such as durable elastomeric wheels and tires, spandex fibers, high performance adhesives and sealants. Polyurethane which has excellent physical properties, abrasion resistance, flexibility, extensibility, durability, weatherability, chemical resistance due to expanding the range of applications are becoming the trend. In this study, acrylic water-borne polyurethane dispersion coating solutions were prepared from Poly(carbonate diol), Isophrone diisocyanate(IPDI), and dimethylol propionic acid(DMPA). Then, acrylate monomer was capped on the NCO group of the prepolymer. Finally, the acrylic water borne polyurethane was mixed with Multi-walled carbon nano tube (MWCNT). At this time, we studied about change in [NCO]/[Polyol] ratio value of starting material has effect on water borne acrylic polyurethane.