

A study on the synthesis and properties of silylated acrylic polyurethane with aminopropyl triethoxysilane (APS) by adding 2-HEMA and MMA to copolymerization

김병석, 김기영, 송기창\*  
건양대학교  
(songkc@konyang.ac.kr\*)

Recently, the studies on the synthesis and properties of water-borne polyurethane dispersion(WPU) which was dispersed on water instead of organic solvents(BTX) has been attracted a lot of attentions as a synthetic resin. However, the WPU showed low mechanical properties than the organic solvents based polyurethanes. In order to, acrylate monomers and silane coupling agents have studied as additives to improve the properties of WPU. In this study, Amino propyl triethoxysilane(APS) was used as the capping agent during the urethane reaction. Then 2-HEMA(2-Hydroxyethyl methacrylate) and MMA(Methylmethacrylate) monomers added to silane terminated water-borne polyurethane for prepared silylated acrylic polyurethane copolymer.