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IMPROVEMENT OF CARBONBLACK DISPERSIBILITY WITH SILOXANE-COPOLYMER

Room: Karam 3

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The mixture of Polyetherimide (PEI) with PEI based Siloxane-Polyetherimide copolymer (SiPEI) was investigated in order to disperse conductive carbonblack (CB) into polymer matrix. The CB dispersibility depended on the SiPEI/PEI ratio and very smooth sheet could be available using this material. Through the direct observation using microscopes, SiPEI and CB dispersed like island and the diameter of SiPEI was less than 100nm when the SiPEI/PEI ratio was 0.1-0.3. The contact angle of polymer mixture is close to the one of CB when SiPEI ratio is 0.1-0.3, and very smooth and flat films or sheets without carbon drop outs could be available.