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Morphological Analysis of Tiger-Stripe and Striped Pattern Deterioration on Injection Molding of Polypropylene/Rubber/Talc Blends

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Tiger-stripe of injection molding of Polypropylene (PP)/rubber/talc blends was analyzed in terms of morphologies of dispersed phase comprising rubber components by using gloss, scanning electron microscopy (SEM). Tiger-stripe became inconspicuous with decreasing degree of orientation of the dispersed phase along flow direction. However, unique striped pattern deteriorations occurred after aging under ultra-violet (UV) irradiation with/without rain and thermal annealing although any conspicuous tiger-stripe was not observed on the initial specimen. These deteriorations were caused on the basis of morphological changes dependant on aging conditions.