

## Rheological Behavior of Etylene Vinyl Acetate Copolymer with Vinyl Acetate and Dicumyl Peroxide Contents

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Rheological properties of etylene vinyl acetate copolymer (EVA) were studied by DMTA. In the study of the DMTA of 26% VA contnet EVA, the storage modulus ( $G'$ ) of EVA adding 0phr DCP was higher than that of EVA adding 0.5, 1.0, 1.5, 2.0 phr DCP at room temperature. However storage modulus of adding 0.5, 1.0, 1.5, 2.0 phr DCP did not show particular changes. The thermal analysis and crosslinking density experiments from swelling measurements were also performed for 26% VA content EVA. The results from the thermal analysis and crosslinking density experiments were consistent with the DMTA results. From the DMTA of the 26, 33, 41, 46% VA content EVA, the storage modulus was decreased from increasing the VA content. From the study of DMTA, thermal analysis and crosslinking density experiment, it was suggested that the flexibility of EVA was dominantly influenced by the crystallinity, not by the degree of crosslinking.

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