

### Rheological Study of a Filled Starch System

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Rheological hysteresis of filled starch during rotational shearing has been studied in this study. The filler concentration was varied from zero to high levels. Temperature during shear is varied to observe the thermal structure variation of starch. The effect of filler concentration, temperature effect, shear rate effect and elongation effects on the rheological behavior are experimentally studied with rotational viscometer. Several rheological models are used to describe the non-Newtonian behaviors of filled starch under various thermal conditions. The model predictions are compared with rheological data from our experiments.