

Rheological and Thermodynamic Properties of PEO-PPE-PEO and PAA-g-PEO-PPO-PEO System

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Abstract—Rheological and thermodynamic properties of Pluronic F127 copolymer and Pluronic-g-PAA have been studied as a function of temperature and concentration. A combination of rheometry and DSC was employed to examine the gelation behavior of F127 and F127-g-PAA. The viscosity of F127 is extremely sensitive to temperature when the polymer concentration exceeds 10 wt%. But significant increase of viscosity has been observed for 1.0 wt%F127-PAA aqueous solution as a function of temperature. This could be due to the PAA grafts, acting as cross-links attached to the F127 backbone.

[Full Text Not Available]