

**Numerical Simulation of Resin Flow, Heat Flow
and Curing of Polymer Composites**

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Abstract

This paper is concerned with the two dimensional simulation of the curing process of a thermoset polymer laminate. Earlier work provided approximate analytic solutions to the Stokes' equations for slow resin flow. These results are then employed to simplify the numerical calculations of the coupled heat conduction, convections and reaction equations. Both the temperature and degree of cure are obtained for a single sheet of prepreg. These results will be displayed and future work will be discussed.