Associated Polymer Labs, Inc.

Title: How Does Your Composite, Prepreg, Thermoset, or Epoxy Material Perform?

Associated Polymer Labs conducts performance evaluations because manufacturers want to be assured their product performs at its best.

Description: DMA is typically used to measure the glass transition temperature (T_g) of composites, thermosets, prepregs, and epoxies. The glass transition temperature (T_g) is often used to identify the temperature range (or QC) of the glassy region to the viscoelastic region.

Further analysis of the data can determine failure, poor curing conditions, instability, micro cracks, fatigue, and damage detection. The shape and slope of the storage and loss modulus and resulting tan-δ curve reveal a whole area about performance evaluation.

The scientists at **Associated Polymer Labs** have over 20 years experience. They use this knowledge to determine and predict product stability. Some accomplishments include DMA of rigid gas permeable contact lenses that predict thermoset stability, curing cycle, and gamma radiation effects using a single test. Another was a prepreg performance to long term stability under adverse conditions like -150°C to 350°C temperature range for aerospace applications.

ASTM E1640: Test Method for Assignment of the Glass Transition Temperature By Dynamic Mechanical Analysis
ASTM D7028: Standard Test Method for Glass Transition Temperature (DMA Tg) of Polymer Matrix Composites by Dynamic Mechanical Analysis (DMA)