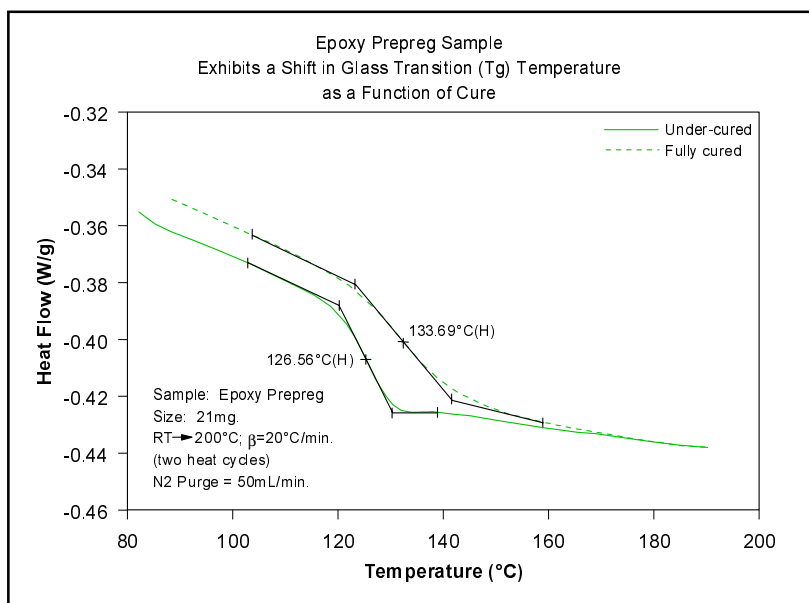


## THERMAL SOLUTIONS

### Characterization of Epoxy Prepregs by DSC



DSC measures the temperatures and heat flows associated with transitions in materials as a function of temperature or time in a controlled atmosphere. This technique provides quantitative and qualitative information about physical and chemical changes that involve endothermic or exothermic processes, or changes in heat capacity.

This thermal curve shows two heat cycles on an epoxy prepreg used to manufacture printed circuit boards. DSC easily detects a shift in the glass transition (T<sub>g</sub>) temperature indicating the sample, as received, was not fully cured. The under-cured sample could affect assembly operations (i.e. hole drilling). This example clearly shows how the TA Instruments line of DSC's can be used to characterize materials in both a research and quality control setting.

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