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## **C1Po2A-06 [19]: Direct measurement of residual strains in epoxy resin using embedded strain gauges**

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In this work, the implementation of residual strains in epoxy resin during its curing process with an operational range of 300 K-400 K and cooling process with an operational range of 15 K-300 K was studied using embedded strain gauges. This represents a significant reduction in the lowest usable temperature of epoxy resin as well as a significant increase in sensitivity of residual strains in curing epoxy resin compared with previously reported solutions. This was accomplished by embedding strain gauges in the epoxy resin before it cured. The measurement of residual strains in epoxy resin gives us a more comprehensive understanding of the mechanical properties of epoxy resin so that we can make a full prevention of warping, loss of mechanical properties caused by residual stresses.

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