

Evaluation of Epoxy Resin Curing Process in Terms of Viscoelasticity

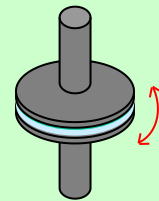
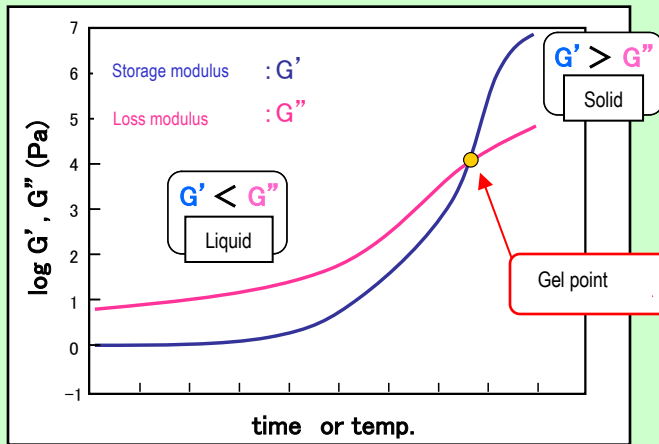
Summary

Curing time can be evaluated by measuring changes in physical properties in the course of heat curing reaction and UV curing reaction by dynamic viscoelasticity measurement.

- Dynamic viscoelasticity measurement by use of the rotating type rheometer (temperature and time dependency)

Thermosetting reaction

Observation is performed of the changes in viscoelasticity properties brought about by curing by making measurement in the temperature rise process at constant temperature.

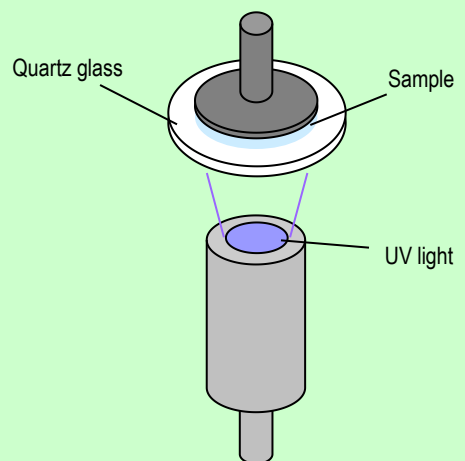
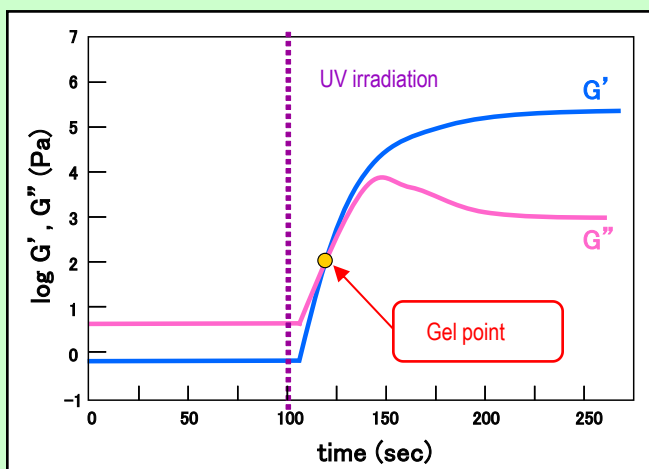


Point at which the size relationship between storage modulus and loss modulus interchanges

From liquid to solid

UV curing reaction

Measurement is made while the sample is being irradiated with UV light, and changes in viscoelasticity due to curing reaction are observed.



It is possible to track changes in the physical properties of materials by observing the modulus, viscosity and gel point in the curing reaction process.

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