**Figure Captions**

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| Figure 1 | Backing Material Fixture filled with Polymeric Clay |
| Figure 2 | Typical response of a viscoelastic material to rheological experiment (ref. no. 5) |
| Figure 3 | Calibration of the backing material |
| Figure 4 | Amplitude sweep for LVE Region |
| Figures 5(a), 5(b), 5(c) | Change in storage and loss modulus with frequency in various temperature regimes (a) 30°C, (b) 40°C, (c) 50°C |
| Figure 6 | Change in loss factor with respect to temperature |
| Figure 7 | Effect of impact energy on depth of deformation |
| Figure 8 | Effect of temperature on depth of deformation |
| Figure 9 | Effect of time on depth of deformation |

**Table Captions**

|  |  |
| --- | --- |
| Table 1 | Change in temperature of backing material during heating and cooling modes |