

ISO 18437-3:2005-04 (E)

Mechanical vibration and shock - Characterization of the dynamic mechanical properties of visco-elastic materials - Part 3: Cantilever shear beam method

| Contents | | Page |
|-----------------|---|-------------|
| 1 | Scope | 1 |
| 2 | Normative references | 2 |
| 3 | Terms and definitions | 2 |
| 4 | Test equipment (see Figure 1) | 3 |
| 4.1 | Electro-dynamic vibration generator | 3 |
| 4.2 | Force measurement | 3 |
| 4.3 | Displacement transducer | 4 |
| 4.4 | Clamping system | 4 |
| 4.5 | Environmental chamber | 5 |
| 4.6 | Computer | 5 |
| 5 | Operating procedure | 5 |
| 5.1 | Sample preparation and mounting | 5 |
| 5.2 | Conditioning | 6 |
| 5.3 | Cantilever shear beam analysis | 7 |
| 5.4 | Calibration and measurement | 8 |
| 5.5 | Number of test pieces | 8 |
| 5.6 | Temperature cycle | 8 |
| 6 | Analysis of results | 9 |
| 6.1 | Time-temperature superposition | 9 |
| 6.2 | Data presentation | 9 |
| 6.3 | Test report | 10 |
| | Annex A (informative) Linearity of resilient materials | 11 |
| | Annex B (informative) Time-temperature superposition | 12 |
| | Bibliography | 14 |