

# ISO 18437-2:2005-04 (E)

## Mechanical vibration and shock - Characterization of the dynamic mechanical properties of visco-elastic materials - Part 2: Resonance 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	Accelerometers .....	3
4.3	Charge amplifiers .....	4
4.4	Test stand .....	4
4.5	Environmental chamber .....	5
4.6	Dual-channel spectrum analyser .....	5
4.7	Computer .....	5
5	Operating procedures .....	5
5.1	Sample preparation and mounting .....	5
5.2	Conditioning .....	6
5.3	Number of test pieces .....	7
5.4	Data acquisition .....	7
5.5	Temperature cycle .....	8
6	Analysis of results .....	8
6.1	Modulus and loss factor .....	8
6.2	Time-temperature superposition .....	10
6.3	Data presentation .....	10
6.4	Test report .....	11
	Annex A (informative) Linearity of vibration resilient materials .....	12
	Annex B (informative) Time-temperature superposition .....	13
	Bibliography .....	15