

# ISO 24323:2023-12 (E)

## Timber structures - Design method for vibrational serviceability of timber floors

---

<b>Contents</b>		<b>Page</b>
	Foreword.....	iv
	Introduction.....	v
1	Scope.....	1
2	Normative references.....	1
3	Terms and definitions.....	1
4	Baseline timber floor vibrational serviceability design criterion.....	1
5	General models for calculating $f$ and $d_{1\text{ kN}}$ .....	2
6	<b>Simplified calculation procedures for light-frame timber joisted floors</b> .....	4
6.1	Floor construction.....	4
6.2	Calculation of first natural frequency and static deflection under a 1 kN load at floor centre.....	4
6.3	Effective composite bending stiffness, $D_{\text{ef}}$ .....	5
6.4	Transverse system stiffness factor, $K_t$ .....	6
7	<b>Simplified calculation procedures for mass timber floors</b> .....	7
7.1	Floor construction.....	7
7.2	Calculation of first natural frequency and static deflection under a 1 kN load at floor centre.....	7
8	<b>Design values of floor components</b> .....	8
	<b>Annex A (informative) Coupled criteria for timber floor vibrational serviceability design</b> .....	9
	<b>Annex B (informative) Decoupled criteria for timber floor vibrational serviceability design</b> .....	12
	<b>Annex C (informative) Explanatory notes</b> .....	14
	<b>Bibliography</b> .....	15