ISO/TR 4553:2022-01 (E)

Deformations and displacements of buildings and building elements at serviceability limit states

Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Limit state design **1**

5 Serviceability limit state guidelines for buildings and building elements **2**

6 Design procedure for serviceability limit states **2**

7 Probability of exceedance and reliability index for serviceability **3**

8 Verification methods for serviceability **4**

8.1 General 4

8.2 Actions 4

8.3 Design values of the effects of actions 5

8.4 Combination of actions 6

8.4.1 General 6

8.4.2 Characteristic combination of actions 6

8.4.3 Frequent combination of actions 6

8.4.4 Quasi-permanent combination of actions 6

8.4.5 Combination of actions in seismic design situations 7

8.5 Design values of geometrical parameters 7

8.6 Design values of material properties 7

9 Criteria for serviceability limit state **8**

9.1 General 8

9.2 Vertical and horizontal deformations 8

9.2.1 General 8

9.2.2 Vertical deformations 9

9.2.3 Horizontal deformations 10

9.2.4 Concrete buildings — Stress limitation and checking of cracks 11

9.3 Vibration 11

Bibliography **12**