DIN EN ISO 17562:2021-05 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for linear thermal expansion of monolithic ceramics by push-rod technique (ISO 17562:2016)

Contents

Page

European foreword ... 3

Foreword ... 4

1 Scope ... 5

2 Normative references ... 5

3 Terms and definitions ... 5

4 Principle ... 6

5 Apparatus ... 6

6 Specimens ... 6
6.1 Test specimen ... 6
6.2 Reference specimen ... 7

7 Procedure ... 7
7.1 General ... 7
7.2 Procedure for a single-rod dilatometer ... 7
7.3 Procedure for a differential type dilatometer ... 8

8 Expected uncertainty level ... 8

9 Calculation of results ... 9

10 Calibration of apparatus ... 9
10.1 General ... 9
10.2 Calibration of the displacement measuring device ... 10
10.3 Calibration of the temperature measuring device ... 10
10.4 Measurement of base line variation ... 10

11 Test report ... 10

Annex A (normative) **Reference data for thermal expansion** ... 11

Annex B (normative) **Method for deriving Formulae (1) and (2) for use with a single-rod type (or differential expansion type) instrument** ... 13

Annex C (informative) **Suitable apparatus for the dilatometric measurement** ... 15

Bibliography ... 17