DIN EN ISO 4545-2:2018-07 (E)

Metallic materials - Knoop hardness test - Part 2: Verification and calibration of testing machines (ISO 4545-2:2017)

Contents

Page

European foreword ... **3**

Foreword ... **4**

1 Scope ... **5**

2 Normative references ... **5**

3 Terms and definitions ... **5**

4 General conditions ... **5**

5 Direct verification ... **6**
5.1 General ... 6
5.2 Calibration of the test force ... 6
5.3 Verification of the indenter ... 7
5.4 Calibration and verification of the diagonal measuring system ... 8
5.5 Verification of the testing cycle ... 8
5.6 Uncertainty of calibration/verification ... 9

6 Indirect verification ... **9**
6.1 General ... 9
6.2 Test force and hardness levels ... 9
6.3 Measurement of reference indentations ... 9
6.4 Number of indentations ... 9
6.5 Verification result ... 9
6.6 Repeatability ... 10
6.7 Bias ... 10
6.8 Uncertainty of calibration/verification ... 11

7 Intervals between verifications ... **11**

8 Verification report/calibration certificate ... **11**
8.1 Knoop testing machine ... 11
8.2 Knoop indenter ... 12

Annex A (informative) **Uncertainty of the calibration results of the hardness testing system** ... **13**

Bibliography ... **22**