

DIN 50159-2:2022-06 (E)

Metallic materials - Hardness testing with the UCI method - Part 2: Verification and calibration of the testing devices

Contents	Page
Foreword	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General conditions	5
5 Designation	5
6 Direct calibration	6
7 Indirect calibration	7
7.1 General	7
7.2 Procedure	7
7.3 Repeatability	8
7.4 Bias	8
8 Time intervals between calibrations	9
9 Requirements on the hardness reference blocks	9
10 Calibration certificate	9
Annex A (informative) Measurement uncertainty of the calibration results for the hardness testing device	11
A.1 General	11
A.2 Direct calibration of the test force	11
A.3 Indirect calibration of the hardness testing device	12
A.4 Measurement uncertainty budget	13
Bibliography	15
Tables Table 1 -- Permissible limit deviations for the test force and its repeatability	6
Table 2 -- Permissible repeatability and bias of the hardness testing device	8
Table 3 -- Direct calibration of hardness testing devices	9
Table A.1 -- Results of indirect calibration	13
Table A.2 -- Measurement uncertainty budget	13
Table A.3 -- Maximum limit deviation of the hardness testing device including uncertainty of measurement	14