

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