

ISO 6507-1:2018-01 (E)

Metallic materials - Vickers hardness test - Part 1: Test method

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Symbols and designations	2
5.1 Symbols and designations used in this document	2
5.2 Designation of hardness number	3
6 Testing machine	3
6.1 Testing machine	3
6.2 Indenter	3
6.3 Diagonal measuring system	4
7 Test piece	4
7.1 Test surface	4
7.2 Preparation	4
7.3 Thickness	4
7.4 Tests on curved surfaces	4
7.5 Support of unstable test pieces	5
8 Procedure	5
8.1 Test temperature	5
8.2 Test force	5
8.3 Periodic verification	5
8.4 Test piece support and orientation	5
8.5 Focus on test surface	6
8.6 Test force application	6
8.7 Prevention of the effect of shock or vibration	6
8.8 Minimum distance between adjacent indentations	6
8.9 Measurement of the diagonal length	7
8.10 Calculation of hardness value	7
9 Uncertainty of the results	7
10 Test report	8
Annex A (normative) Minimum thickness of the test piece in relation to the test force and to the hardness	9
Annex B (normative) Tables of correction factors for use in tests made on curved surfaces	11
Annex C (normative) Procedure for periodic checking of the testing machine, diagonal measuring system and the indenter by the user	15
Annex D (informative) Uncertainty of the measured hardness values	17

Annex E (informative) Vickers hardness measurement traceability	24
Annex F (informative) CCM -- Working group on hardness	28
Annex G (informative) Adjustment of Köhler illumination systems	29
Bibliography	30