

ISO 28080:2021-02 (E)

Hardmetals - Abrasion tests for hardmetals

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	2
5 Materials	2
5.1 Test pieces	2
5.1.1 Overall sizes	2
5.1.2 Surface finish	2
5.2 Abrasive	2
5.3 Reference materials	2
5.4 Wheel	3
5.4.1 Material	3
5.4.2 Wheel size	3
6 Apparatus	3
6.1 Summary of apparatuses (test systems)	3
6.2 Abrasive-feed mechanism	4
6.3 Vacuum extraction	4
6.4 Control of wheel speed	5
6.5 Calibration of abrasive flow	5
6.6 Test load	5
6.7 Fluid flow	5
6.8 Instrumentation	5
7 Preparation of test piece	6
7.1 Test-piece cleaning	6
7.2 Test-piece weighing	6
7.3 Test-sample density	6
8 Procedure	7
8.1 General	7
8.2 Test-piece clamping	7
8.3 Typical operation conditions	7
8.4 Start of test	7
8.5 End of test or test stop	7
8.6 Interrupted tests	8
8.7 Use of a reference material	8
8.8 Number of repeat tests	8
9 Expression of results	8
9.1 Single-step test	8
9.2 Multiple-step test	8
9.2.1 Tabulation	8
9.2.2 Calculation of abrasion rate	9
9.3 Illustration of trends of wear, friction force and normal force	9
9.4 Illustration of comparative set of measurements using two abrasion materials	9
10 Uncertainty of measurement	10
11 Test report	11
Bibliography	13