

DIN EN ISO 28080:2021-06 (E)

Hardmetals - Abrasion tests for hardmetals (ISO 28080:2021)

Contents		Page
European foreword		4
Foreword		5
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions	7
4	Principle	8
5	Materials	8
5.1	Test pieces	8
5.1.1	Overall sizes	8
5.1.2	Surface finish	8
5.2	Abrasive	8
5.3	Reference materials	8
5.4	Wheel	9
5.4.1	Material	9
5.4.2	Wheel size	9
6	Apparatus	9
6.1	Summary of apparatuses (test systems)	9
6.2	Abrasive-feed mechanism	10
6.3	Vacuum extraction	10
6.4	Control of wheel speed	11
6.5	Calibration of abrasive flow	11
6.6	Test load	11
6.7	Fluid flow	11
6.8	Instrumentation	11
7	Preparation of test piece	12
7.1	Test-piece cleaning	12
7.2	Test-piece weighing	12
7.3	Test-sample density	12
8	Procedure	13
8.1	General	13
8.2	Test-piece clamping	13
8.3	Typical operation conditions	13
8.4	Start of test	13
8.5	End of test or test stop	13
8.6	Interrupted tests	14
8.7	Use of a reference material	14
8.8	Number of repeat tests	14
9	Expression of results	14
9.1	Single-step test	14
9.2	Multiple-step test	14

9.2.1	Tabulation	14
9.2.2	Calculation of abrasion rate	15
9.3	Illustration of trends of wear, friction force and normal force	15
9.4	Illustration of comparative set of measurements using two abrasion materials	15
10	Uncertainty of measurement	16
11	Test report	17
	Bibliography	19