

DIN ISO 17167:2021-06 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Mechanical properties of monolithic ceramics at room temperature - Determination of flexural strength by the ring-on-ring test (ISO 17167:2018)

Contents

	Page
National foreword	3
National Annex NA (informative) Bibliography	4
Foreword	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Principle	6
5 Significance and use	7
6 Apparatus	7
6.1 Test machine	7
6.2 Test jig	8
6.3 Calliper or alternative calibrated device for the measurement of the test piece thickness	9
6.4 Device for measuring the temperature and humidity	9
7 Test pieces	9
7.1 General	9
7.2 Dimensions and tolerances	10
7.3 Surface finish	11
7.3.1 General	11
7.3.2 Surface finishing I: as-fired	12
7.3.3 Surface finishing II: grinding/lapping/polishing	12
7.3.4 Surface finish III: finishing by agreed procedure	12
7.3.5 Check of dimensions	12
7.3.6 General requirements	13
7.3.7 Number of test pieces	13
7.4 Precautions	13
8 Procedure	13
9 Calculations	14
10 Test report	15
Annex A (informative) Typical fracture patterns of ceramic test pieces after a ring-on-ring test	16
Bibliography	18