

ISO 23146:2012-12 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test methods for fracture toughness of monolithic ceramics - Single-edge V-notch beam (SEVNB) method

Contents	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Apparatus	2
6 Test piece preparation	3
6.1 Number of test pieces	3
6.2 Test-piece dimensions	4
6.3 Preparing the V-notch by hand	4
6.4 Preparing the V-notches by machine (optional)	7
6.5 Determination of notch-root radius	7
7 Test procedure	8
7.1 Dimensions of test piece	8
7.2 Flexural-strength test	8
7.3 Measurement of notch depth	9
7.4 Calculation of fracture toughness	9
8 Precision and bias	11
9 Test report	11
Annex A (informative) Notch honing by machine	12
Annex B (informative) Interlaboratory evaluation of the SEVNB fracture toughness test procedures	14
Annex C (informative) Corrections for effective crack length greater than notch depth	16
Bibliography	17