

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