ISO 24370:2005-06 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for fracture toughness of monolithic ceramics at room temperature by chevron-notched beam (CNB) method

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Symbols 2

5 Principle 3

6 Apparatus 3
6.1 Test machine 3
6.2 Flexure fixtures 3
6.3 Micrometer 4
6.4 Optical microscope 4
6.5 Stability detection equipment 5

7 Test specimens 5
7.1 Geometry, size, preparation and edge chamfering 5
7.2 Number of specimens 8

8 Procedure 9
8.1 Permitted test environments 9
8.2 Test specimen dimensions and alignment 9
8.3 Post-test measurements 10
8.4 Post-test interpretation 10

9 Calculation 12
9.1 Calculations of the minimum stress intensity factor coefficient Y*min 12
9.2 Calculation of the fracture toughness value, KI,CNB 13

10 Test report 13

Bibliography 15