DIN EN ISO 14627:2026-03 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for fracture resistance of silicon nitride materials for rolling bearing balls at room temperature by indentation fracture (IF) method (ISO 14627:2012)

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Principle 2

5 Apparatus 2
5.1 Testing machine 2
5.2 Indenter 2
5.3 Verification by standard reference materials 3

6 Test specimens 3
6.1 General 3
6.2 Thickness 3
6.3 Surface finish 3

7 Procedure 3
7.1 Specimen placement 3
7.2 Specimen leveling 3
7.3 Clean the indenter 3
7.4 Application of test load 3
7.5 Acceptability of indentations 4
7.6 Number of indentations 4
7.7 Measurement of indentation size 5
7.8 Measurement of crack size 5

8 Calculation 5

9 Test report 6

Bibliography 8