ISO 23331:2021 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for total electrical conductivity of conductive fine ceramics

Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 Symbols

5 Principle

6 Apparatus

- 6.1 Measurement system
- 6.2 Furnace
- 6.3 Voltmeter
- 6.4 Constant direct current (DC) supply
- 6.5 Wire electrodes and lead wires
- 6.6 Caliper
- 6.7 Micrometer

7 Test piece

- 7.1 Shape and dimensions
- 7.2 Surface roughness
- 7.3 Density
- 7.4 Configuration of four wire electrodes
- 7.5 Number of test pieces

8 Test procedure

- 8.1 Dimension measurement of a test piece
- 8.2 Heating of a test piece
- 8.3 Maintenance of gas composition and gas flow rate
- 8.4 Measurement of total electrical conductivity

9 Calculation of total electrical conductivity

10 Expression of total electrical conductivity

- 10.1 The value of total electrical conductivity
- 10.2 The expression of total electrical conductivity

11 Analysis of precision and uncertainty

12 Test report

Page count: 8