

ISO 19606:2024-11 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Test method for surface roughness of fine ceramic films by atomic force microscopy

Contents

Page

Foreword.....	iv
Introduction.....	v
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Test environment.....	2
5 Roughness measurement specimens.....	2
6 Test apparatus.....	2
6.1 Atomic force microscopy system.....	2
6.2 Cantilever.....	2
6.3 Scanner.....	2
6.4 Specimen stage.....	3
7 Test apparatus calibration.....	3
8 Probe-tip diameter evaluation standard plate.....	3
9 Calibration of X-Y and Z scan axes.....	4
10 Probe-tip error evaluation.....	5
10.1 Outline of probe-tip error evaluation.....	5
10.2 Measurements of preliminary R_a and R_{sm}	6
10.3 Evaluation of probe-tip diameter.....	7
10.4 Evaluation of error in roughness measurements.....	9
11 Roughness measurements of specimen.....	13
12 Test report.....	14
Annex A (informative) Determination of D from D'	16
Annex B (informative) Method to determine criteria for probe-tip error.....	18
Bibliography.....	24