ISO 24449:2021-10 (E)

Metallic and other inorganic coatings - Determination of thermal conductivity of thermal barrier coatings at elevated temperature

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Principle 2

5 Apparatus for measuring thermal diffusivity 3

6 Specimen 3
6.1 Shape and dimensions 3
6.2 Specimen preparation 5

7 Measuring procedure 5
7.1 Specimen thickness 5
7.2 Thermal diffusivity 6
7.2.1 Measurement of temperature-rise curve 6
7.2.2 Calculation of thermal diffusivity of substrate 6
7.2.3 Calculation of thermal diffusivity of TC 6
7.3 Specific heat capacity 7
7.4 Bulk density 7

8 Thermal conductivity of TC 8

9 Report 8

Bibliography 10