ISO 4664-3:2021 (E)

Rubber, vulcanized or thermoplastic — Determination of dynamic properties — Part 3: Glass transition temperature (Tg)

Contents

Foreword

Introduction

1 Scope

2 Normative references

3 Terms and definitions

4 Principle

5 Apparatus

5.1 General
5.2 Force capability and measurement
5.3 Cycling capability
5.4 Damping measuring device
5.5 Test chamber
5.6 Grips
5.7 Measurement of test piece dimensions

6 Test piece

6.1 Preparation
6.2 Dimensions

7 Number of test pieces

8 Conditioning

9 Procedure

9.1 Measurement of the test piece dimensions
9.2 Measurement of properties
9.3 Test conditions
9.3.1 Strain
9.3.2 Frequency
9.3.3 Temperature
9.4 Clamping and testing

10 Expression of results

10.1 General
10.2 Calculation of tan δ

11 Determination of glass transition temperature, Tg

12 Precision

13 Test report

Annex A (informative) Temperature dependence of dynamic properties of vulcanized rubber

Annex B (informative) Precision results from an interlaboratory test programme

B.1 General
B.2 Precision results from the ITP
B.2.1 Programme details
B.2.2 Precision results