

BS ISO 12013-2:2012



BSI Standards Publication

Paints and varnishes — Determination of curing characteristics using a free damped oscillation method

Part 2: Glass transition temperature

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National foreword

This British Standard is the UK implementation of ISO 12013-2:2012.

The UK participation in its preparation was entrusted to Technical Committee STI/10, Test methods for paints.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Date	Text affected
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**Paints and varnishes — Determination
of curing characteristics using a free
damped oscillation method —**

**Part 2:
Glass transition temperature**

*Peintures et vernis — Détermination des caractéristiques de
polymérisation par une méthode utilisant un pendule amorti —*

Partie 2: Température de transition vitreuse





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Foreword

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ISO 12013-2 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General tests methods for paints and varnishes*.

ISO 12013 consists of the following parts, under the general title *Paints and varnishes — Determination of curing characteristics using a free damped oscillation method*:

- *Part 1: Start temperature of the curing reaction*
- *Part 2: Glass transition temperature*

Introduction

When a rigid-body pendulum with a cylindrical edge is placed in contact with a cured coating, the free damped oscillation is measured as, due to heating, the viscoelasticity of the paint film changes. The attenuation of the oscillating rigid pendulum on the coating depends on the viscoelasticity of the paint. When the viscoelasticity of the paint changes, the logarithmic damping ratio of the rigid-body pendulum changes. Various paint film properties can be read from a plot of the logarithmic damping ratio versus temperature (see Annex A).