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Rheological test methods — Fundamentals and interlaboratory comparisons —

Part 1: Determination of the yield point

Méthodes d'essai rhéologiques — Principes fondamentaux et comparaisons interlaboratoires —

Partie 1: Détermination du seuil d'écoulement

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Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Goal of the interlaboratory test ... **1**

5 Metrological determination of the yield point ... **2**
5.1 General ... 2
5.2 Shear rate-controlled rotational test ... 2
5.3 Yield point evaluation using flow curve regression models ... 2
5.4 Shear stress-controlled rotational test ... 4
5.5 Evaluation methods for yield points ... 4
5.5.1 General ... 4
5.5.2 Axis intercept for presentation of the flow curve using a linear scale ... 4
5.5.3 Plateau value for presentation of the flow curve using a logarithmic scale ... 5
5.5.4 Yield point evaluation at a reference value ... 5
5.5.5 Methods with regression lines for presentation in the lg γ/lg τ diagram ... 6
5.5.6 Rotational test: viscosity maximum method ... 7
5.5.7 Tests with constant shear rate ... 8
5.5.8 Creep test ... 9
5.5.9 Oscillatory test: amplitude sweep ... 10

6 Results of the comparative testing programme ... **12**
6.1 Performance of the tests ... 12
6.1.1 Preliminary tests ... 12
6.1.2 Comparative testing programme ... 12
6.2 Measuring samples ... 12
6.3 Method used for determination of the yield point ... 13

7 Result ... **14**

8 Rheometer calibration and measurement uncertainty ... **15**

Annex A (informative) **Explanatory notes** ... **16**

Bibliography ... **17**

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Foreword

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Rheological test methods — Fundamentals and interlaboratory comparisons —

Part 1: Determination of the yield point

1 Scope

This document gives information on an interlaboratory comparison for the determination of the yield point, using rheological test methods. The yield point is the shear stress τ below which a material does not flow.

This document provides examples of fields of applications, in which important material properties are characterized with the aid of the yield point. These fields of application include:

— effectiveness of rheological additives;

— shelf life (e.g. with regard to sedimentation, separation and flocculation);

— stability of the structure at rest;

— behaviour when starting to pump;

— use in scraper systems;

— wet-film thickness;

— levelling and sagging behaviour (e.g. without brushmarks or sag formation);

— orientation of effect pigments.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3219-1, *Rheology — Part 1: Vocabulary and symbols for rotational and oscillatory rheometry*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 3219-1.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Goal of the interlaboratory test

In the interlaboratory test, different possibilities for determining the yield point using the preferred methods were considered.

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