

**Plastid. Polümeeride termogravimeetriline analüüs (TG).  
Osa 1: Üldpõhimõtted (ISO 11358-1:2014)**

**Plastics - Thermogravimetry (TG) of polymers - Part 1:  
General principles (ISO 11358-1:2014)**

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ICS 83.080.01

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English Version

**Plastics - Thermogravimetry (TG) of polymers - Part 1: General principles (ISO 11358-1:2014)**

Plastiques - Thermogravimétrie (TG) des polymères - Partie 1: Principes généraux (ISO 11358-1:2014)

Kunststoffe - Thermogravimetrie (TG) von Polymeren - Teil 1: Allgemeine Grundsätze (ISO 11358-1:2014)

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## Foreword

This document (EN ISO 11358-1:2014) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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### Endorsement notice

The text of ISO 11358-1:2014 has been approved by CEN as EN ISO 11358-1:2014 without any modification.

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# Plastics — Thermogravimetry (TG) of polymers —

## Part 1: General principles

### 1 Scope

This part of ISO 11358 specifies general conditions for the analysis of polymers using thermogravimetric techniques. It is applicable to liquids or solids. Solid materials may be in the form of pellets, granules or powders. Fabricated shapes reduced to appropriate specimen size may also be analysed by this method.

Thermogravimetry can be used to determine the temperature(s) and rate(s) of decomposition of polymers, and to measure at the same time the amounts of volatile matter, additives and/or fillers they contain.

The thermogravimetric measurements may be carried out in dynamic mode (mass change versus temperature or time under programmed conditions) or isothermal mode (mass change versus time at constant temperature).

Thermogravimetric measurements may also be carried out using different testing atmospheres, e.g. to separate decomposition in an inert atmosphere from oxidative degradation.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 472, *Plastics — Vocabulary*

ISO 11357-1, *Plastics — Differential scanning calorimetry (DSC) — Part 1: General principles*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472 and the following apply.

#### 3.1

##### **dynamic mass-change determination**

technique for recording the variation of the mass of a test specimen with temperature  $T$  which is changing at a programmed rate

#### 3.2

##### **isothermal mass-change determination**

technique for recording the variation of the mass of a test specimen with time  $t$  at constant temperature  $T$

#### 3.3

##### **Curie temperature**

temperature at which a ferromagnetic material passes from the ferromagnetic state to the paramagnetic state or vice versa