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**Carbon-fibre-reinforced composites —  
Determination of fibre weight content  
by thermogravimetry (TG)**

*Composites renforcés de fibres de carbone — Détermination de la  
teneur en masse de fibres par thermogravimétrie (TG)*

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## Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

Methods for the determination of fibre content of carbon fibre reinforced plastics has been established in ISO 14127. The fibre mass in the composite sample is derived by removing the plastic/polymer part in the sample by combustion using burner and the use of strong acid in ISO 14127. These methods are not recommended on the grounds of safety and reagent waste. The determination method of the content of carbon black in the rubber and rubber products is regulated by ISO 9924-3. A thermogravimeter is employed as the apparatus to remove the rubber part of the sample in ISO 9924-3. Currently, thermogravimeters are produced commercially with accuracy, repeatability and reproducibility sufficient for the determination of fibre content in carbon fibre reinforced plastics. In this document, a thermogravimeter is used as the apparatus to remove the plastic/polymer part of the composite sample.

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