INTERNATIONAL STANDARD

ISO 1172

Third edition
2023-08

Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content using calcination methods

Plastiques renforcés de verre textile — Préimprégnés, compositions de moulage et stratifiés — Détermination des taux de verre textile et de charge minérale par des méthodes calcination

Reference number
ISO 1172:2023(E)

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Published in Switzerland

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Foreword

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 1172:1996), which has been technically revised.

The main changes are as follows:

— more detailed definitions of procedures in 7.2 (Method A) have been added.

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Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content using calcination methods

WARNING — This document does not give details of the precautions that should be taken to meet health and safety requirements. The test methods described require the use of high temperatures and concentrated acids. It is the responsibility of the user of this document to follow the appropriate health and safety procedures.

1 Scope

This document specifies two calcination methods for the determination of the textile glass and mineral filler content of glass-reinforced plastics:

— Method A: for the determination of the textile glass content when no mineral fillers are present.

— Method B: for the determination of the textile-glass and mineral-filler content when both components are present.

This document is applicable to the following types of material:

— prepregs made from yarns, rovings, tapes or fabrics;

— SMC, BMC and DMC moulding compounds;

— textile-glass-reinforced thermoplastic moulding materials and granules;

— filled or unfilled textile-glass laminates made with thermosetting or thermoplastic resins.

The methods do not apply to the following types of reinforced plastic:

— those containing reinforcements other than textile glass;

— those containing materials which do not completely burn off at the test temperature (for example, those based on silicone resin);

— those containing mineral fillers which degrade at temperatures below the minimum calcination temperature.

NOTE For these materials, ISO 11667 can be used.

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 472, *Plastics — Vocabulary*

ISO 8604, *Plastics — Prepregs — Definitions of terms and symbols for designations*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 472 and ISO 8604 apply.

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