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Textile glass — Determination of combustible-matter content

Verre textile — Détermination de la teneur en matières combustibles

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Foreword

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The committee responsible for this document is ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

This fourth edition cancels and replaces the third edition (ISO 1887:1995), which has been technically revised.

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Textile glass — Determination of combustible-matter content

1 Scope

This International Standard specifies a method for the determination of the combustible-matter content of products made from textile glass, such as continuous-filament yarns, staple-fibre yarns, rovings, chopped strands, milled fibres, fabrics, chopped-strand and continuous-filament mats, and other glass reinforcements.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1
combustible-matter content
ratio of the mass of material removed on calcination from a dried textile glass product to the mass of the dried product

Note 1 to entry: This ratio is expressed as a percentage in this International Standard. It is equal to the content of size or finish on the textile glass product when the size or finish is completely combustible without significant residue (i.e. primarily organic products).

3 Principle

Test specimens, dried under prescribed conditions, are weighed before and after calcination at a temperature of 625 °C ± 20 °C or, with types of glass which are unstable at this temperature, at a temperature between 500 °C and 600 °C, also kept constant to within 20 °C.

4 Apparatus

4.1 Air-circulation oven, for drying specimens, capable of being maintained at 105 °C ± 5 °C or the chosen drying temperature and maintained to within ±5 °C (see 6.3).

4.2 Muffle furnace, capable of being maintained, with a tolerance of ±20 °C, at any desired temperature up to 625 °C, the temperature being measured at the centre of the muffle furnace with the door closed.

4.3 Desiccator, containing a suitable desiccant, for example silica gel, calcium chloride, phosphorous(V) oxide.

4.4 Specimen holder, made from a material stable at the test temperature, allowing the best possible air circulation around the test specimen and designed to prevent loss of material. The holder may be a porcelain crucible, a basket made of stainless-steel gauze, etc.

4.5 Stainless-steel tongs, for handling test specimens and holders.

4.6 Balance, accurate to 0,1 mg.

4.7 Polished-metal templates, for the preparation of test specimens.

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