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**Textile glass — Mats — Determination of
tensile breaking force**

Verre textile — Mats — Détermination de la force de rupture en traction



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Foreword

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 3342 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

This fourth edition cancels and replaces the third edition (ISO 3342:1995), of which it constitutes a minor revision. The main changes are as follows:

- a) the normative references have been updated;
- b) former Subclauses 5.2, 5.3 and 5.6 have been deleted;
- c) explanatory footnotes concerning the terms “elementary unit” and “laboratory sample” have been added.

Textile glass — Mats — Determination of tensile breaking force

1 Scope

This International Standard specifies a method for the determination of the tensile breaking force of textile glass mats.

The method is intended for chopped-strand mat but is equally applicable to certain types of continuous-strand mat usually intended for pultrusion.

2 Normative references

The following referenced documents are indispensable for the application 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 291, *Plastics — Standard atmospheres for conditioning and testing*

3 Terms and definitions

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

3.1

tensile breaking force

maximum force required to break the test specimen in a tensile test carried to rupture

NOTE It is generally expressed in newtons.

4 Principle

A pre-conditioned test specimen of standard dimensions is subjected to tension by a suitable mechanical device which indicates the tensile breaking force on a recorder or scale.

NOTE The test results might vary significantly depending on whether they are obtained on rolls of mat or on the mat prior to winding into rolls (normally, the result is higher prior to winding). The method specified in this International Standard describes the procedure for testing rolls of mat.

5 Apparatus

5.1 Tensile-testing machine.

5.1.1 All testing machines shall include the following elements.

- a) A pair of suitable clamps to grip the specimen. They shall have a width of 160 mm and a minimum depth of 25 mm. The faces of the clamps shall be plane and parallel, shall ensure uniform pressure over the whole width of the test specimen and shall prevent it from slipping. The clamps shall also ensure, at all times, alignment of the axis of the test specimen with the direction of the applied force. The initial distance between the clamps shall be 200 mm.
- b) A means for applying tension to the specimen.