

Fibre-reinforced plastics — Methods of producing test plates —

Part 4: Moulding of prepregs

ICS 83.120

National foreword

This British Standard is the UK implementation of ISO 1268-4:2005+A1:2010. It supersedes BS ISO 1268-4:2005, which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to ISO text carry the number of the ISO amendment. For example, text altered by ISO amendment 1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee PRI/42, Fibre reinforced thermosetting plastics and prepregs.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

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Fibre-reinforced plastics — Methods of producing test plates —

Part 4: Moulding of prepregs

*Plastiques renforcés de fibres — Méthodes de fabrication de plaques
d'essai —*

Partie 4: Moulage des préimprégnés



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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 1268-4 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

This first edition cancels and replaces ISO 9353:1991, which has been technically revised. It considers input from prEN 2565, EN 2374 and ASTM D 5687.

ISO 1268 consists of the following parts, under the general title *Fibre-reinforced plastics — Methods of producing test plates*:

- *Part 1: General conditions*
- *Part 2: Contact and spray-up moulding*
- *Part 3: Wet compression moulding*
- *Part 4: Moulding of prepregs*
- *Part 5: Filament winding*
- *Part 6: Pultrusion moulding*
- *Part 7: Resin transfer moulding*
- *Part 8: Compression moulding of SMC and BMC*
- *Part 9: Moulding of GMT/STC*
- *Part 10: Injection moulding of BMC and other long-fibre moulding compounds — General principles and moulding of multipurpose test specimens*
- *Part 11: Injection moulding of BMC and other long-fibre moulding compounds — Small plates*

Fibre-reinforced plastics — Methods of producing test plates —

Part 4: Moulding of prepregs

1 Scope

This part of ISO 1268 describes the preparation of test plates from layers of preimpregnated unidirectional fibre or fabric (prepregs) under pressure and temperature in various types of equipment (for example, autoclave, bladder press, hydraulic press or vacuum bag equipment). It applies to all reinforcements and resins.

This method is applicable to reinforcements preimpregnated either with a partially cured thermosetting resin or with a thermoplastic resin. The test plate is formed by stacking layers of the preimpregnated material in the required sequence and orientation, followed by compaction and final consolidation under pressure/vacuum at a temperature above ambient. The prepared test plates are subsequently machined into the required test specimens.

Standard plates prepared in this manner may be used either for evaluating the components, i.e. the reinforcement, finish, resin, etc., or for verifying the overall quality of the finished product.

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.

 Text deleted 

ISO 1172, *Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content — Calcination methods*

ISO 1183 (all parts), *Plastics — Methods for determining the density of non-cellular plastics*

ISO 1268-1, *Fibre-reinforced plastics — Methods of producing test plates — Part 1: General conditions*

ISO 2818, *Plastics — Preparation of test specimens by machining*

ISO 7822, *Textile glass reinforced plastics — Determination of void content — Loss on ignition, mechanical disintegration and statistical counting methods*

 ISO 14127, *Carbon-fibre-reinforced composites — Determination of the resin, fibre and void contents* 

3 Health and safety

See ISO 1268-1.