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**Textile-glass-reinforced plastics — Sheet  
moulding compound (SMC) — Basis for a  
specification**

*Plastiques renforcés au verre textile — Mats préimprégnés SMC — Base  
de spécification*

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Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
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## Contents

Page

Foreword.....	iv
1 <b>Scope</b> .....	1
2 <b>Normative references</b> .....	1
3 <b>Term and definition</b> .....	3
4 <b>Classification of SMC</b> .....	3
5 <b>Properties</b> .....	6
6 <b>Sampling</b> .....	8
7 <b>Shelf life</b> .....	8
8 <b>Packing, packaging and labelling</b> .....	8

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 8605 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*.

This second edition cancels and replaces the first edition (ISO 8605:1989), in which the lists of methods for determining the properties of SMC have been revised.

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# Textile-glass-reinforced plastics — Sheet moulding compound (SMC) — Basis for a specification

## 1 Scope

This International Standard establishes a basis for a specification for sheet moulding compound (SMC) used in the production of composite parts by hot moulding.

It applies only to sheet moulding compound having glass fibres as the sole or main reinforcement.

It should be noted that the term sheet moulding compound covers products which can be complex mixtures and which may differ from the definition of “mat” given in ISO 472.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 62:1999, *Plastics — Determination of water absorption*.

ISO 75-2:—<sup>1)</sup>, *Plastics — Determination of temperature of deflection under load — Part 2: Plastics and ebonite*.

ISO 179-1:2000, *Plastics — Determination of Charpy impact properties — Part 1: Non-instrumented impact test*.

ISO 179-2:1997, *Plastics — Determination of Charpy impact properties — Part 2: Instrumented impact test*.

ISO 180:2000, *Plastics — Determination of Izod impact strength*.

ISO 291:1997, *Plastics — Standard atmospheres for conditioning and testing*.

ISO 472:1999, *Plastics — Vocabulary*.

ISO 527-4:1997, *Plastics — Determination of tensile properties — Part 4: Test conditions for isotropic and orthotropic fibre-reinforced plastic composites*.

ISO 1172:1996, *Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content — Calcination methods*.

ISO 1183-1:—<sup>2)</sup>, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method*.

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1) To be published. (Revision of ISO 75-2:1993)

2) To be published. (Revision, in parts, of ISO 1183:1987)

ISO 1183-2:—<sup>3)</sup>, *Plastics — Methods for determining the density of non-cellular plastics — Part 2: Density gradient column method.*

ISO 1183-3:1999, *Plastics — Methods for determining the density of non-cellular plastics — Part 3: Gas pycnometer method.*

ISO 1268 (all parts), *Fibre-reinforced plastics — Methods of producing test plates.*

ISO 1886:1990, *Reinforcement fibres — Sampling plans applicable to received batches.*

ISO 2577:1984, *Plastics — Thermosetting moulding materials — Determination of shrinkage.*

ISO 3672-1:2000, *Plastics — Unsaturated-polyester resins (UP-R) — Part 1: Designation system.*

ISO 3673-1:1996, *Plastics — Epoxy resins — Part 1: Designation.*

ISO 9782:1993, *Plastics — Reinforced moulding compounds and preregs — Determination of apparent volatile-matter content.*

ISO 10352:1997, *Fibre-reinforced plastics — Moulding compounds and preregs — Determination of mass per unit area.*

ISO 11667:1997, *Fibre-reinforced plastics — Moulding compounds and preregs — Determination of resin, reinforced-fibre and mineral-filler content — Dissolution methods.*

ISO 12114:1997, *Fibre-reinforced plastics — Thermosetting moulding compounds and preregs — Determination of cure characteristics.*

ISO 12115:1997, *Fibre-reinforced plastics — Thermosetting moulding compounds and preregs — Determination of flowability, maturation and shelf life.*

ISO 14125:1998, *Fibre-reinforced plastic composites — Determination of flexural properties.*

ISO 14126:1999, *Fibre-reinforced plastic composites — Determination of compressive properties in the in-plane direction.*

ISO 14130:1997, *Fibre-reinforced plastic composites — Determination of apparent interlaminar shear strength by short-beam method.*

IEC 60093:1980, *Methods of test for volume resistivity and surface resistivity of solid electrical insulating materials.*

IEC 60112:1979, *Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions.*

IEC 60243 (all parts), *Electrical strength of insulating materials — Test methods.*

IEC 60250:1969, *Recommended methods for the determination of the permittivity and dielectric dissipation factor of electrical insulating materials at power, audio and radio frequencies including metre wavelengths.*

IEC 60695-2-12:2000, *Fire hazard testing — Part 2-12: Glowing/hot-wire based test methods — Glow-wire flammability test method for materials.*

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3) To be published. (Revision, in parts, of ISO 1183:1987)