
**Thermoplastics pipes, fittings and
assemblies for the conveyance of
fluids — Determination of the resistance
to internal pressure —**

**Part 1:
General method**

*Tubes, raccords et assemblages en matières thermoplastiques pour le
transport des fluides — Détermination de la résistance à la pression
interne —*

Partie 1: Méthode générale



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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 1167-1 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 5, *General properties of pipes, fittings and valves of plastic materials and their accessories — Test methods and basic specifications*.

This first edition of ISO 1167-1, together with ISO 1167-2, cancels and replaces ISO 1167:1996 and, together with ISO 1167-3, cancels and replaces ISO 12092:2000 of which it constitutes a technical revision.

ISO 1167 consists of the following parts, under the general title *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure*:

- *Part 1: General method*
- *Part 2: Preparation of pipe test pieces*
- *Part 3: Preparation of components*
- *Part 4: Preparation of assemblies*

Introduction

Tests for determining resistance to internal pressure are essential for assessing the properties and durability of thermoplastics piping system parts. In fact, they constitute a basis for determining short-term and long-term characteristics.

Many International Standards contain requirements for the determination of the resistance to pressure of pipes, fittings or assemblies. All these documents describe the equipment for pressurizing the different test pieces considered as well as the testing procedure and the test report.

In order to avoid unnecessary repetition, it is desirable to group together all these documents and to establish one International Standard divided into several parts.

ISO 1167-1 contains a description of the equipment used to pressurize test pieces, the testing procedure to be applied and the test report.

ISO 1167-2, ISO 1167-3 and ISO 1167-4 describe the method of preparation of test pieces corresponding to each case considered: pipes, components or assemblies.

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Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure —

Part 1: General method

1 Scope

This part of ISO 1167 specifies a general test method for determining the resistance to internal hydrostatic pressure at a given temperature of thermoplastics pipes, fittings and piping systems for the transport of fluids.

The method accommodates water-in-water, water-in-air and water-in-liquid tests.

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 1167-2:2006, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation of pipe test pieces*

ISO 1167-3, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 3: Preparation of components*¹⁾

ISO 1167-4, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 4: Preparation of assemblies*¹⁾

ISO 3126, *Plastics piping systems — Plastics components — Determination of dimensions*

ISO 9080, *Plastics piping and ducting systems — Determination of the long-term hydrostatic strength of thermoplastics pipe materials in pipe form by extrapolation*

3 Terms and definitions

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

3.1

component

fitting or valve, in single or multiple form, that is supplied as an integral unit

3.2

standard dimension ratio

SDR

ratio of the nominal outside diameter d_n of a pipe to its nominal wall thickness e_n

1) To be published.