
**Plastics piping systems for water supply
and for buried and above-ground
drainage and sewerage under pressure —
Unplasticized poly(vinyl chloride)
(PVC-U) —**

Part 3: Fittings

ICS 23.040.20; 23.040.45; 91.140.60; 93.025



**Mauritius Standards Bureau
Moka**

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National foreword

This Mauritian Standard is identical with the International Standard **ISO 1452-3:2009**, *Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure – Unplasticized poly (vinyl chloride) (PVC-U) – Part 3: Fittings*. It was adopted by the Mauritius Standards Bureau in 2010 on the recommendation of the **Building and Construction Standards Committee** through its **Subcommittee on Plastics Pipes and Fittings** and approved by the **Standards Council** on 1 September 2010. It was notified in the Government Gazette on **25 September 2010***.

This Mauritian Standard cancels and replaces the Mauritian Standard **MS ISO 4422-3:1996** which has technically been revised.

For the purposes of this standard the following changes should be made:

- (i) the words 'International Standard' should be replaced by 'Mauritian Standard';
- (ii) the "decimal comma" should be replaced by "decimal point",
- (iii) a national informative annex NA has been included giving guidance to users.

MS ISO 1452 consists of the following parts, under the general title *Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure — Unplasticized poly(vinyl chloride) (PVC-U)*:

- Part 1: General
- Part 2: Pipes
- Part 3: Fittings
- Part 4: Valves
- Part 5: Fitness for purpose of the system

* **General Notice No. 1844 of 2010.**



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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 1452-3 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, *Plastics piping systems and ducting systems*, in collaboration with ISO Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 2, *Plastics pipes and fittings for water supplies*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition cancels and replaces ISO 4422-3:1996, ISO 264:1976, ISO 264:1976/Add.1:1982, ISO 2045:1988, ISO 2048:1990, ISO 3460:1975, ISO 4434:1977 and ISO 6455:1983, which have been technically revised.

ISO 1452 consists of the following parts, under the general title *Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure — Unplasticized poly(vinyl chloride) (PVC-U)*:

- *Part 1: General*
- *Part 2: Pipes*
- *Part 3: Fittings*
- *Part 4: Valves*
- *Part 5: Fitness for purpose of the system*

Guidance for the assessment of conformity is to form the subject of a part 7.

Introduction

The System Standard, of which this is Part 3, specifies the requirements for a piping system and its components made from unplasticized poly(vinyl chloride) (PVC-U). The piping system is intended to be used for water supply and for buried and above-ground drainage and sewerage under pressure.

In respect of potential adverse effects on the quality of water intended for human consumption, caused by the products covered by this part of ISO 1452, the following are relevant.

- a) This part of ISO 1452 provides no information as to whether the products may be used without restriction.
- b) Existing national regulations concerning the use and/or the characteristics of these products remain in force.

Requirements and test methods for material and components, other than fittings, are specified in ISO 1452-1, ISO 1452-2 and ISO 1452-4. Characteristics for fitness for purpose (mainly for joints) are established in ISO 1452-5.

This part of ISO 1452 specifies the characteristics of fittings.

Guidance for installation is given in ISO/TR 4191^[1].

Guidance for the assessment of conformity is provided in ENV 1452-7^[2].

For the convenience of users of this part of ISO 1452, marking on fittings and flanges according to withdrawn International Standards (e.g. ISO 4422-3:1996) may be considered valid for a period, e.g. up to three years from the date of publication of this part of ISO 1452.

PREVIEW

Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure — Unplasticized poly(vinyl chloride) (PVC-U) —

Part 3: Fittings

1 Scope

This part of ISO 1452 specifies the characteristics of fittings made from unplasticized poly(vinyl chloride) (PVC-U) for piping systems intended for water supply and for buried and above-ground drainage and sewerage under pressure.

It also specifies the test parameters for the test methods referred to in this part of ISO 1452.

In conjunction with ISO 1452-1, ISO 1452-2 and ISO 1452-5, it is applicable to PVC-U fittings and to joints with components of PVC-U, other plastics and non-plastics materials intended to be used for the following:

- a) water mains and services buried in the ground;
- b) conveyance of water above ground for both outside and inside buildings;
- c) buried and above-ground drainage and sewerage under pressure.

It is applicable to fittings in piping systems intended for the supply of water under pressure up to and including 25 °C (cold water), intended for human consumption and for general purposes as well as for waste water under pressure.

This part of ISO 1452 is also applicable to components for the conveyance of water and waste water up to and including 45 °C. For temperatures between 25 °C and 45 °C, Figure A.1 of ISO 1452-2:2009 applies.

NOTE 1 The producer and the end-user can come to agreement on the possibilities of use for temperatures above 45 °C on a case-by-case basis.

Depending on the jointing method, this part of ISO 1452 is applicable to the following types of fittings:

- fittings for solvent cementing;
- elastomeric ring seal fittings.

PVC-U fittings can be manufactured by injection-moulding and/or be fabricated from pipe.

This part of ISO 1452 is also applicable to PVC-U flange adapters and to the corresponding flanges made from various materials.

This part of ISO 1452 covers a range of fitting sizes and pressure classes and gives requirements concerning colours.

NOTE 2 It is the responsibility of the purchaser or specifier to make the appropriate selections from these aspects, taking into account their particular requirements and any relevant national regulations and installation practices or codes.