

This is a preview of "ISO 1452-3:2009". [Click here to purchase the full version from the ANSI store.](#)

First edition
2009-12-01

Corrected version
2010-03-01

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

*Systèmes de canalisations en plastique pour l'alimentation en eau, pour
branchements et collecteurs d'assainissement enterrés et aériens avec
pression — Poly(chlorure de vinyle) non plastifié (PVC-U) —*

Partie 3: Raccords



Reference number
ISO 1452-3:2009(E)

© ISO 2009

This is a preview of "ISO 1452-3:2009". [Click here to purchase the full version from the ANSI store.](#)

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2009

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 1452-3:2009". Click here to purchase the full version from the ANSI store.

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references	2
3 Terms, definitions, symbols and abbreviated terms	3
3.1 Terms and definitions	3
3.2 Symbols.....	3
4 Material	3
4.1 Fitting material	3
4.2 Density.....	3
4.3 MRS-value	4
5 General characteristics.....	4
5.1 Appearance	4
5.2 Colour	4
5.3 Opacity of fittings intended for the above-ground conveyance of water.....	4
6 Geometrical characteristics	4
6.1 Measurement of dimensions	4
6.2 Nominal diameters	4
6.3 Fittings for solvent cementing	4
6.4 Adapter fittings	12
6.5 Tapping saddles	14
6.6 Flange adapters and flanges	17
6.7 Elastomeric ring seal fittings	20
6.8 End-load-bearing double-sockets with elastomeric seals	29
7 Classification and operating conditions	29
7.1 Classification	29
7.2 Selection of nominal pressure and pipe series S for water up to and including 25 °C	29
7.3 Determination of the allowable operating pressure for water up to 45 °C	30
8 Mechanical characteristics.....	30
8.1 Resistance to internal pressure of fittings or parts of fittings	30
8.2 Crushing test	31
9 Physical characteristics.....	31
10 Sealing rings	32
11 Adhesives.....	32
12 Performance requirements.....	32
13 Marking	32
13.1 General	32
13.2 Minimum required marking	32
13.3 Additional marking	33
Annex A (normative) Imperial(inch)-sized fittings.....	34
Bibliography.....	37

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.

This corrected version of ISO 1452-3:2009 incorporates the correction of Figure 8 c).

This is a preview of "ISO 1452-3:2009". [Click here to purchase the full version from the ANSI store.](#)

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.