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**Pipes and fittings made of unplasticized  
poly(vinyl chloride) (PVC-U) for water  
supply — Specifications —**

**Part 5:**  
**Fitness for purpose of the system**

*Tubes et raccords en poly(chlorure de vinyle) non plastifié (PVC-U) pour  
l'adduction d'eau — Spécifications —*

*Partie 5: Aptitude à l'emploi du système*

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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.

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.

International Standard ISO 4422-5 was prepared by 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*.

Together with the other parts, this part of ISO 4422 cancels and replaces ISO 4422:1990, which has been technically revised.

ISO 4422 consists of the following parts, under the general title *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications*:

- *Part 1: General*
- *Part 2: Pipes (with or without integral sockets)*
- *Part 3: Fittings and joints*
- *Part 4: Valves and ancillary equipment*
- *Part 5: Fitness for purpose of the system*

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ISO 4422 is one of a series of system standards for plastics piping systems which are being prepared within ISO/TC 138. Each system standard is based on a specific material for a specific application.

They conform to a standard multi-part format, each part dealing with a specific aspect of the overall system.

NOTE — At the present time, the reference document for the installation code is ISO/TR 4191, and this document will ultimately form part 6 of this International Standard.

Annex A of this part of ISO 4422 is for information only.

# Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications —

## Part 5:

### Fitness for purpose of the system

#### 1 Scope

This part of ISO 4422 specifies the requirements for the determination of the fitness for purpose of a piping system composed of pipes, joints, fittings and auxiliaries made of unplasticized poly(vinyl chloride) (PVC-U), to be used for buried water mains and services and for water supplies above ground, both inside and outside buildings.

The pipes, joints, fittings and auxiliaries covered by this part of ISO 4422 are intended for the conveyance of cold water under pressure at temperatures up to 20 °C, for general purposes and for the supply of drinking water. This part of ISO 4422 is also applicable to water up to and including 45 °C (see figure 1 in ISO 4422-2:1996).

The requirements specified in this part of ISO 4422 are applicable to assembled pipes, fittings, valves and ancillary equipment which can be demonstrated to conform to the respective requirements of ISO 4422 parts 1, 2, 3 and 4.

#### 2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 4422. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 4422 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4422-1:1996, *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications — Part 1: General.*

ISO 4422-2:1996, *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications — Part 2: Pipes (with or without integral sockets).*

ISO 4422-3:1996, *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications — Part 3: Fittings and joints.*

ISO 4422-4:—<sup>1)</sup>, *Pipes and fittings made of unplasticized poly(vinyl chloride) (PVC-U) for water supply — Specifications — Part 4: Valves and ancillary equipment.*

ISO 4633:1996, *Rubber seals — Joint rings for water supply, drainage and sewerage pipelines — Specification for materials.*

1) To be published. (Revision, in parts, of ISO 4422:1990)