# INTERNATIONAL STANDARD

# ISO 4433-2

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# Thermoplastics pipes — Resistance to liquid chemicals — Classification —

## Part 2:
## Polyolefin pipes

*Tubes en matières thermoplastiques — Résistance aux liquides chimiques — Classification —*

*Partie 2: Tubes en polyoléfines*



Reference number
ISO 4433-2:1997(E)

# 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 4433-2 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 3, *Plastics pipes and fittings for industrial applications.*

Together with the other parts (see below), this part of ISO 4433 cancels and replaces ISO 4433:1984, which has been technically revised.

ISO 4433 consists of the following parts, under the general title *Thermoplastics pipes — Resistance to chemical fluids — Classification*:

— *Part 1: Immersion test method*

— *Part 2: Polyolefin pipes*

— *Part 3: Unplasticized poly(vinyl chloride) (PVC-U), high-impact poly(vinyl chloride) (PVC-HI) and chlorinated poly(vinyl chloride) (PVC-C) pipes*

— *Part 4: Poly(vinylidene fluoride) (PVDF) pipes*

Annex A of this part of ISO 4433 is for information only.



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# Introduction

This part of ISO 4433 gives a system for preliminary classification of the chemical resistance of polyolefin pipes.

The method is based on the change in mass and changes in tensile properties resulting from immersion of test pieces, taken from the walls of polyolefin pipes, in the liquid to be conveyed, in the absence of pressure.

If the pipes are to be used under stress, for example for conveying liquids under pressure, the method only allows incompatibilities between the liquid and the material to be detected; a "satisfactory" or "limited" result needs to be confirmed by subsequent tests using ISO 8584-1[1] (see annex A).

NOTES

1 If pertinent to the proposed application, consideration should be given to whether particular liquids permeate the pipe wall.

2 The possibility of a build-up of electrostatic charge in pipes during use should also be considered.