



**International  
Standard**

**ISO 24994**

**Plastics piping systems —  
Determination of selected metal  
and semi-metal migration values  
of plastic pipes, fittings and their  
joints**

*Systèmes de canalisations en plastique — Détermination des  
valeurs de migration de certains métaux et semi-métaux dans les  
tubes, raccords en plastique et leurs assemblages*

**First edition  
2026-07**

Reference number  
ISO 24994:2026(en)

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# Sample Document

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Published in Switzerland

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## Foreword

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This document 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*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Migratable elements in water supply pipes, fittings and their joints, especially metal elements, can affect water quality and endanger human health. This document provides a method for the detection of selected metals and semi-metals in migration liquid acquiring from a series of migration periods according to ISO 8795. The method of detection is conducive to providing a unified test method and conditions to obtain comparative test data. This document can serve as a measure for additive monitoring and quality control.

In this document, inductively coupled plasma mass spectrometry (ICP-MS) is used to determine the elements' migration values in migration liquid of plastic pipes, fittings and their joints. The main advantages of ICP-MS include multi-element measurement capability, wide linear dynamic range and high sensitivity.

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