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Responsible committee: PRI/88 Plastics piping systems

Interested committees:

Title: Draft BS ISO 24033 Polyethylene of raised temperature resistance (PE-RT) pipes - Effect of time and temperature on the expected strength.

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## Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

For national standards, comments will be reviewed by the relevant UK national committee and the resulting standards published as a British Standard.

## UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

## Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
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## Template for comments and secretariat observations

|                  |                        |
|------------------|------------------------|
| Date: xx/xx/20xx | Document: ISO/DIS xxxx |
|------------------|------------------------|

| 1  | 2                                          | (3)                          | 4               | 5                                                                                                                                  | (6)                                                                      | 7                                                  |
|----|--------------------------------------------|------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------|
| MB | Clause No./ Subclause No./Annex (e.g. 3.1) | Paragraph/ Figure/Table/Note | Type of comment | Comment (justification for change) by the MB                                                                                       | Proposed change by the MB                                                | Secretariat observations on each comment submitted |
|    | 3.1                                        | Definition 1                 | ed              | Definition is ambiguous and needs clarifying.                                                                                      | Amend to read '...so that the mains connector to which no connection...' |                                                    |
|    | 6.4                                        | Paragraph 2                  | te              | The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK. | Delete reference to UV photometer.                                       |                                                    |



# DRAFT International Standard

## ISO/DIS 24033

### Polyethylene of raised temperature resistance (PE-RT) pipes — Effect of time and temperature on the expected strength

*Tubes en polyéthylène de meilleure résistance à la température (PE-RT) — Influence du temps et de la température sur la résistance espérée*

ICS: 23.040.20

ISO/TC 138/SC 5

Secretariat: **NEN**

Voting begins on:  
**2024-08-28**

Voting terminates on:  
**2024-11-20**

This document is circulated as received from the committee secretariat.

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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*).

This third edition cancels and replaces the second edition (ISO 24033:2009), which has been technically revised.

The main changes compared to the previous edition are as follows:

Equation for PE-RT Type I for 110 °C added.

[Annex A](#) changed.

[Annex B](#) added.

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

An increasing number of types of polyethylene (PE) polymers, made in a variety of processes, is on the market for different applications in plastic piping and ducting systems. Many applications have their own system standard that defines the properties and requirements for the pipes and fittings used.

The types of PE suitable for use in hot and cold-water systems are basically different from those for applications at ambient temperatures such as in water supply, sewage and drainage, and gaseous fuels.

Therefore, it makes sense to differentiate those PE materials having raised temperature-resistance by terming them “PE-RT” (for polyethylene of raised temperature)<sup>1)</sup>

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1) Abbreviated term based on the provisions of, and guidance for preparing new abbreviated terms for, basic polymers, mixtures of polymers, and related terms given in ISO 1043-1 [\[1\]](#)