

Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels —

**Part 3: Thermoplastic fittings for pipes
of nominal outside diameter less than or
equal to 63mm**

ICS 75.200; 83.140.30

National foreword

This British Standard reproduces verbatim ISO 10838-3:2001 and implements it as the UK national standard.

The UK participation in its preparation was entrusted by Technical Committee PRI/88, Plastic Piping Systems to the subcommittee PRI/88/2, Plastic Piping for Pressure, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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This British Standard, having been prepared under the direction of the Sector Committee for Materials and Chemicals, was published under the authority of the Standards Committee and comes into effect on 15 August 2001

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**Mechanical fittings for polyethylene piping
systems for the supply of gaseous fuels —**

Part 3:

**Thermoplastics fittings for pipes of
nominal outside diameter less than or
equal to 63 mm**

*Raccords mécaniques pour systèmes de canalisation en polyéthylène
destinée à la distribution de combustibles gazeux —*

*Partie 3: Raccords thermoplastiques pour tubes de diamètre extérieur
nominal inférieur ou égal à 63 mm*



Reference number
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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 part of ISO 10838 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10838-3 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 4, *Plastics pipes and fittings for the supply of gaseous fuels*.

ISO 10838 consists of the following parts, under the general title *Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels*:

- *Part 1: Metal fittings for pipes of nominal outside diameter less than or equal to 63 mm*
- *Part 2: Metal fittings for pipes of nominal outside diameter greater than 63 mm*
- *Part 3: Thermoplastics fittings for pipes of nominal outside diameter less than or equal to 63 mm*

Annexes A and B of this part of ISO 10838 are for information only.

Mechanical fittings for polyethylene piping systems for the supply of gaseous fuels —

Part 3:

Thermoplastics fittings for pipes of nominal outside diameter less than or equal to 63 mm

WARNING — This part of ISO 10838 does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this part of ISO 10838 to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

1 Scope

This part of ISO 10838 specifies requirements and test methods for full-end-load-resistant mechanical pipe-jointing systems for connecting, to each other or to a fitting or as a lateral connection to a polyethylene main (branching or lateral connection), polyethylene (PE) pipes, conforming to ISO 4437, of nominal outside diameter smaller than or equal to 63 mm.

In addition, it specifies certain general properties of the material from which these fittings are made.

This part of ISO 10838 specifies dimensional requirements for, and the performance of, such assemblies.

It is applicable to mechanical fittings with thermoplastics and/or reinforced-thermoplastics load-bearing components intended for use with PE pipes designed for the supply of gaseous fuels, to produce either permanent joints or joints which can be dismantled.

If intended for assembly with a metal pipe or fitting, such connections may comprise compression joints or flanged or fused connections.

This part of ISO 10838 is applicable only to mechanical fittings with normal operating-temperature limits between $-20\text{ }^{\circ}\text{C}$ and $+40\text{ }^{\circ}\text{C}$, unless otherwise agreed between the interested parties.

It is the purpose of this part of ISO 10838 to provide performance requirements that will ensure that mechanical pipe-jointing systems will provide full sealing and full restraint of the PE piping so that the PE piping will yield rather than pull out of the mechanical joint when subjected to tensile forces or pressure.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 10838. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 10838 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1167, *Thermoplastics pipes for the conveyance of fluids — Resistance to internal pressure — Test method*.

ISO 3458, *Assembled joints between fittings and polyethylene (PE) pressure pipes — Test of leakproofness under internal pressure*.