

Plastics piping systems for hot and cold water installations - Polypropylene (PP) - Part 5: Fitness for purpose of the system (ISO 15874-5:2013)

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ICS 23.040.20, 91.140.60

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English Version

**Plastics piping systems for hot and cold water installations -
Polypropylene (PP) - Part 5: Fitness for purpose of the system
(ISO 15874-5:2013)**

Systèmes de canalisations en plastique pour les
installations d'eau chaude et froide - Polypropylène (PP) -
Partie 5: Aptitude à l'emploi du système (ISO 15874-
5:2013)

Kunststoff-Rohrleitungssysteme für die Warm- und
Kaltwasserinstallation - Polypropylen (PP) - Teil 5:
Gebrauchstauglichkeit des Systems (ISO 15874-5:2013)

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Foreword

This document (EN ISO 15874-5:2013) has been prepared by Technical Committee CEN/TC 155 “Plastics piping systems and ducting systems” the secretariat of which is held by NEN, in collaboration with Technical Committee ISO/TC 138 “Plastics pipes, fittings and valves for the transport of fluids”.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2013, and conflicting national standards shall be withdrawn at the latest by August 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 15874-5:2003.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions, symbols and abbreviated terms	2
4 Fitness for purpose of the joints and the piping system	2
4.1 General	2
4.2 Internal pressure test	2
4.3 Bending test	5
4.4 Pull-out test	7
4.5 Thermal cycling test	7
4.6 Pressure cycling test	8
4.7 Leak tightness under vacuum	8
Bibliography	9

Introduction

This part of ISO 15874 specifies the requirements for a piping system and its components when made from polypropylene (PP). The piping system is intended to be used for hot and cold water installations.

Regarding potential undesirable effects on the quality of water intended for human consumption, caused by the product covered by ISO 15874

- no information is provided as to whether the product can be used without restriction, and
- existing national regulations concerning the use and/or the characteristics of this product remain in force.

Requirements and test methods for components of the piping system are specified in ISO 15874-1, ISO 15874-2 and ISO 15874-3. ISO/TS 15874-7 gives guidance for the assessment of conformity.

This part of ISO 15874 specifies the characteristics of fitness for purpose of the piping systems.

At the date of publication of this part of ISO 15874, the following system International Standards for piping systems of other plastics materials used for the same application are

- ISO 15875, *Plastics piping systems for hot and cold water installations — Crosslinked polyethylene (PE-X)*
- ISO 15876, *Plastics piping systems for hot and cold water installations — Polybutylene (PB)*
- ISO 15877, *Plastics piping systems for hot and cold water installations — Chlorinated poly(vinyl chloride) (PVC-C)*
- ISO 22391, *Plastics piping systems for hot and cold water installations - Polyethylene of raised temperature resistance (PE-RT)*

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Plastics piping systems for hot and cold water installations — Polypropylene (PP) —

Part 5: Fitness for purpose of the system

1 Scope

This part of ISO 15874 specifies the characteristics of the fitness for purpose of polypropylene (PP) piping systems, intended to be used for hot and cold water installations within buildings for the conveyance of water, whether or not intended for human consumption (domestic systems) and for heating systems, under design pressures and temperatures according to the class of application (see Table 1 of ISO 15874-1:2013).

This part of ISO 15874 covers a range of service conditions (classes of application) and design pressure classes. For values of T_D , T_{max} and T_{mal} in excess of those in Table 1 of ISO 15874-1:2013 does not apply.

NOTE It is the responsibility of the purchaser or specifier to make the appropriate selections from these aspects, taking into account their particular requirements and any relevant national regulations and installation practices or codes.

It also specifies the test parameters for the test methods referred to in this part of ISO 15874.

In conjunction with the other parts of ISO 15874, it is applicable to PP pipes, fittings, their joints and to joints with components of other plastics and non-plastics materials intended to be used for hot and cold water installations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 712, *Thermoplastics piping systems — End-load bearing mechanical joints between pressure pipes and fittings — Test method for resistance to pull-out under constant longitudinal force*

EN 713, *Plastics piping systems — Mechanical joints between fittings and polyolefin pressure pipes — Test method for leak tightness under internal pressure of assemblies subjected to bending*

ISO 1167-1 *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method*

ISO 1167-2 *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 2: Preparation of pipe test pieces*

ISO 1167-3 *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 3: Preparation of components*

ISO 1167-4 *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 4: Preparation of assemblies*

EN 12294, *Plastics piping systems — Systems for hot and cold water — Test method for leak tightness under vacuum*

ISO 15874-1:2013 *Plastics piping system for hot and cold water installations — Polypropylene (PP) — Part 1: General*

ISO 15874-2:2013, *Plastics piping system for hot and cold water installations — Polypropylene (PP) — Part 2: Pipes*