



SLOVENSKI STANDARD
SIST EN 17878-3:2024

01-maj-2024

Cevi za daljinsko ogrevanje - Tovarniško izdelani gibki cevni sistemi z nižjim temperaturnim profilom - 3. del: Nevezani cevni sistemi iz polimernih materialov - Zahteve in preskusne metode

District heating pipes - Flexible pipe systems with a lower temperature profile - Part 3: Non bonded system with plastic service pipes; requirements and test methods

Fernwärmerohre - Werkmäßig gedämmte flexible Rohrsysteme mit einem niedrigeren Temperaturprofil - Teil 3: Nicht-Verbund-Rohrsysteme mit Mediumrohren aus Kunststoff; Anforderungen und Prüfungen

Tuyaux de chauffage urbain - Système de tuyaux flexibles préisolés - Partie 3: Système non bloqué avec tubes de service en plastique, exigences et méthodes d'essai

[SIST EN 17878-3:2024](https://standards.iteh.ai/SIST/EN/17878-3/2024)

[https://standards.iteh.ai/SIST/EN/17878-3:2024](https://standards.iteh.ai/SIST/EN/17878-3/2024)

ICS:

23.040.07	Cevovodi za daljinsko ogrevanje in njihovi deli	Pipeline and its parts for district heat
23.040.20	Cevi iz polimernih materialov	Plastics pipes

SIST EN 17878-3:2024

en,fr,de

EUROPEAN STANDARD

EN 17878-3

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2024

ICS 23.040.07

English Version

District heating pipes - Factory made flexible pipe systems with a lower temperature profile - Part 3: Requirements and test methods for non bonded systems with plastic service pipes

Tuyaux de chauffage urbain - Système de tuyaux flexibles préisolés - Partie 3 : Exigences et méthodes d'essai pour les systèmes non bloqués avec tubes de service en plastique

Fernwärmerohre - Werkmäßig gedämmte flexible Rohrsysteme mit einem niedrigeren Temperaturprofil - Teil 3: Nicht-Verbund-Rohrsysteme mit Mediumrohren aus Kunststoff - Anforderungen und Prüfungen

This European Standard was approved by CEN on 28 December 2023.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	3
Introduction	3
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Classification	6
4.1 Operating temperatures and service life	6
4.2 Design pressures	7
5 Requirements	8
5.1 General requirements	8
5.2 Service pipes, fittings and their connections	8
5.2.1 Quality of service pipes, fittings and their connections	8
5.2.2 Fittings with steel welding end	10
5.2.3 Oxygen tightness of service pipes	10
5.3 Sealing in linear direction of pipe assemblies	10
5.4 Water vapour permeation of pipe assemblies	10
6 Test procedures	11
6.1 General	11
6.2 Thermal cycling test	11
Annex A (informative) Application of Miner's Rule – Calculation of the calculated design life of PE-RT Type II, PB-H, PE-X and multilayer piping systems	12
A.1 General	12
A.2 Considerations for multilayer piping systems	14
Annex B (informative) Guidelines for inspection and testing	15
Bibliography	17

European foreword

This document (EN 17878-3:2024) has been prepared by Technical Committee CEN/TC 107 “District heating and cooling systems”, the secretariat of which is held by DS.

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 September 2024, and conflicting national standards shall be withdrawn at the latest by September 2024.

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

This document is part of the EN 17878 series of standards *District heating pipes — Factory made flexible pipe systems with a lower temperature profile*:

- *Part 1: Classification, general requirements and test methods;*
- *Part 2: Requirements and test methods for bonded systems with plastic service pipes;*
- *Part 3: Requirements and test methods for non bonded systems with plastic service pipes.*

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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

Document Preview

[SIST EN 17878-3:2024](https://standards.iteh.ai/catalog/standards/sist/92fbf65b-001d-439c-9f92-366dc6d16ada/sist-en-17878-3-2024)

<https://standards.iteh.ai/catalog/standards/sist/92fbf65b-001d-439c-9f92-366dc6d16ada/sist-en-17878-3-2024>

EN 17878-3:2024 (E)**Introduction**

District heating technology has developed rapidly since its origin and especially in recent times. Today, there are different generations of district heating networks. The technologies of these generations are driven by the different heat sources and operating temperatures used.

CEN/TC 107 provides a set of European standard series for rigid and flexible piping systems in district heating to suit all generations and requirements of district heating networks in the market.

The standard documents ensure quality for pre-fabricated piping systems in district heating.

This standard series covers flexible, pre-fabricated piping systems for operation conditions as described in the scope of part 1.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN 17878-3:2024](https://standards.iteh.ai/catalog/standards/sist/92fbf65b-001d-439c-9f92-366dc6d16ada/sist-en-17878-3-2024)

<https://standards.iteh.ai/catalog/standards/sist/92fbf65b-001d-439c-9f92-366dc6d16ada/sist-en-17878-3-2024>