

Copper and copper alloys — Plumbing fittings —

Part 3: Fittings with compression ends for use with plastics pipes

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ICS 23.040.40

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National foreword

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 13 and a back cover.

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English version

Copper and copper alloys — Plumbing fittings — Part 3: Fittings with compression ends for use with plastics pipes

Cuivre et alliages de cuivre — Raccords —
Partie 3: Raccords à compression pour tuyaux
en plastique

Kupfer und Kupferlegierungen — Fittings —
Teil 3: Klemmverbindungen für Kunststoffrohre

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European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 133, Copper and copper alloys, the Secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by July 1998, and conflicting national standards shall be withdrawn at the latest by July 1998.

Within its programme of work, Technical Committee CEN/TC 133 requested CEN/TC 133/WG 8, Copper and copper alloy fittings, to prepare the following standard: EN 1254-3, *Copper and copper alloys — Plumbing fittings — Part 3: Fittings with compression ends for use with plastics pipes*.

This standard is one of five parts for copper and copper alloy fittings for joining copper tubes or plastics pipes. The other four parts of the standard are: EN 1254-1, *Copper and copper alloys — Plumbing fittings — Part 1: Fittings with ends for capillary soldering or capillary brazing to copper tubes*. EN 1254-2, *Copper and copper alloys — Plumbing fittings — Part 2: Fittings with compression ends for use with copper tubes*. EN 1254-4, *Copper and copper alloys — Plumbing fittings — Part 4: Fittings combining other end connections with capillary or compression ends*. EN 1254-5, *Copper and copper alloys — Plumbing fittings — Part 5: Fittings with short ends for capillary brazing to copper tubes*.

It is recommended that fittings manufactured to this standard are certified as conforming to the requirements of this standard, based on third party testing and continuing surveillance, which should be coupled with an assessment of a supplier's quality system against the appropriate standard, i.e. EN ISO 9001 or EN ISO 9002.

In respect of potential adverse effects on the quality of water intended for human consumption caused by the product covered by this standard:

- a) this standard provides no information as to whether the product may be used without restriction in any of the Member States of the EU or EFTA;
- b) it should be noted that, while awaiting the adoption of verifiable European criteria, existing national regulations concerning the use and/or the characteristics of this product remain in force.

The attention of the user of this standard is drawn to the fact that national or local regulations or practices might restrict the choice of dimensions and threads in the application of products conforming to this standard.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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1 Scope

This European Standard specifies materials, assembly dimensions and tolerances and test requirements for fittings of copper and copper alloys with or without plating or coating. This part of EN 1254 specifies connection end dimensions of compression ends for the purpose of joining plastics pipes for use in cold or combined hot and cold water systems or non-fuel gas systems. Fittings may comprise a combination of any of the end types specified in EN 1254-1 to EN 1254-5 or other standards.

The standard establishes a designation system for the fittings.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to 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 leaktightness under internal pressure of assemblies subjected to bending.*

EN 715, *Thermoplastics piping systems — End-load bearing joints between small diameter pressure pipes and fittings — Test method for leaktightness under internal water pressure, including end thrust.*

EN 911, *Plastics piping systems — Elastomeric sealing ring type joints and mechanical joints for thermoplastics pressure piping — Test method for leaktightness under external hydrostatic pressure.*

EN 1254-1, *Copper and copper alloys — Plumbing fittings — Part 1: Fittings with ends for capillary soldering or capillary brazing to copper tubes.*

EN 1254-2, *Copper and copper alloys — Plumbing fittings — Part 2: Fittings with compression ends for use with copper tubes.*

EN 1254-4, *Copper and copper alloys — Plumbing fittings — Part 4: Fittings combining other end connections with capillary or compression ends.*

EN 1254-5, *Copper and copper alloys — Plumbing fittings — Part 5: Fittings with short ends for capillary brazing to copper tubes.*

prEN 12201-5, *Plastics piping systems for water supply — Polyethylene (PE) — Part 5: Fitness for purpose of the system.*

prEN 12202-5, *Plastics piping systems for hot and cold water — Polypropylene (PP) — Part 5: Fitness for purpose of the system.*

prEN 12293, *Plastics piping systems — Thermoplastics pipes and fittings for hot and cold water — Test method for the resistance of mounted assemblies to temperature cycling.*

prEN 12294, *Plastics piping systems — Systems for hot and cold water — Test method for leaktightness under vacuum.*

prEN 12295, *Plastics piping systems — Thermoplastics pipes and associated fittings for hot and cold water — Test method for resistance of joints to pressure cycling.*

prEN 12318-5, *Plastics piping systems for hot and cold water — Cross-linked polyethylene (PE-X) — Part 5: Fitness for purpose of the system.*

prEN 12319-5, *Plastics piping systems for hot and cold water — Polybutylene (PB) — Part 5: Fitness for purpose of the system.*

EN 12731-5, *Plastics piping systems for hot and cold water — Chlorinated poly(vinyl chloride) (PVC-C) — Part 5: Fitness for purpose of the system.*

EN ISO 6509: 1995, *Corrosion of metals and alloys — Determination of dezincification resistance of brass.* (ISO 6509: 1981)

ISO 6957, *Copper alloys — Ammonia test for stress corrosion resistance.*

NOTE Informative references to documents used in the preparation of this standard, and cited at the appropriate places in the text, are listed in a bibliography, see annex D.

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1

plumbing fitting

device used in a piping system for the purpose of connecting the pipes either to each other or to a component part of a system

NOTE See annex A for types of fitting and description of parts.

3.2

compression end

end in which the joint is made by the compression of a ring or sleeve on the outside wall of the pipe

3.2.1

compression end, type A

end that requires no preparation of the ends of the pipe other than that they are cut square and deburred or chamfered when specified, and in which the joint is made by the compression of a ring or sleeve onto the outside wall of the pipe with or without additional sealing elements and with or without an internal pipe support