



BSI Standards Publication

Copper and copper alloys — Plumbing fittings

Part 6: Push-fit fittings for use with metallic tubes, plastics and multilayer pipes

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National foreword

This British Standard is the UK implementation of EN 1254-6:2021. It supersedes BS EN 1254-6:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee NFE/34/3, Copper and copper alloy fittings for tube and pipe.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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: Raccords instantanés pour tubes métalliques,
en matières plastiques et multicouches

Kupfer und Kupferlegierungen - Fittings - Teil
6: Einsteckfittings für den Einsatz mit Metall-,
Kunststoff- und Mehrschichtverbundrohren

This European Standard was approved by CEN on 23 November 2020.

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

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European foreword

This document (EN 1254-6:2021) 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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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 supersedes EN 1254-6:2012.

The main changes to EN 1254-6:2012 are:

- improved alignment with plastic and multilayer pipe standards for hot and cold water applications;
- separation of test methods into part 20.

This part of the standard (EN 1254-6) should be read in conjunction with EN 1254-20:2021.

EN 1254 comprises the following parts under the general title “Copper and copper alloys — Plumbing fittings”:

- *Part 1: Capillary fittings for soldering or brazing to copper tubes*
- *Part 2: Compression fittings for use with copper tubes*
- *Part 3: Compression fittings for use with plastics and multilayer pipes*
- *Part 4: Threaded fittings*
- *Part 5: Capillary fittings with short ends for brazing to copper tubes*
- *Part 6: Push-fit fittings for use with metallic tubes, plastics and multilayer pipes*
- *Part 7: Press fittings for use with metallic tubes*
- *Part 8: Press fittings for use with plastics and multilayer pipes*
- *Part 20: Definitions, thread dimensions, test methods, reference data and supporting information*

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, Turkey and the United Kingdom.

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Introduction

Products complying with this document may be used for several fluids including the transport of water intended for human consumption if they comply with the relevant national, regional or local regulatory provisions applicable in the place of use.

1 Scope

This document specifies product characteristics, assessment methods, compliance criteria of test results and a designation system for push-fit fittings for the purpose of joining tubes of copper, plated copper, multilayer pipes and plastics pipes. The fitting ends have a nominal diameter from 6 mm to 54 mm. The fittings are designed for a service lifetime up to fifty years.

This document is applicable to push-fit fittings for joining one or more of the following tubes or pipes:

- copper tubes to EN 1057.

The fittings are used up to the operating temperatures and corresponding maximum operating pressures as indicated in [Annex A](#).

This document applies to copper alloy fittings. A non-exhaustive list of these copper alloys is given in CEN/TS 13388.

Adaptor fittings may combine push-fit ends with fitting ends defined in the other parts of EN 1254.

Push-fit fittings for metallic tubes may also have flanged end connections according to EN 1092-3.

Push-fit fittings may also have a plated or other decorative surface coating.

Fittings can be produced by machining, metal forming, casting, or fabrication.

Products covered by this document are intended to be used in liquid applications:

- hot, cold or combined hot and cold water, including systems according to EN 806;
- closed heating systems according to EN 12828;
- cooling systems;
- drainage systems;
- fire protection systems including sprinkler systems according to EN 12845.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 681-1:1996, *Elastomeric seals - Materials requirements for pipe joint seals used in water and drainage applications - Part 1: Vulcanized rubber*

EN 1057:2006+A1:2010, *Copper and copper alloys - Seamless, round copper tubes for water and gas in sanitary and heating applications*

EN 1254-20:2021, *Copper and copper alloys - Plumbing fittings - Part 20: Definitions, thread dimensions, test methods, reference data and supporting information*

EN 10226-3, *Pipes threads where pressure tight joint are made on the threads - Part 3: Verification by means of limit gauges*

EN 12201-2, *Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE) - Part 2: Pipes*

EN 12201-5, *Plastics piping systems for water supply, and for drainage and sewerage under pressure - Polyethylene (PE) - Part 5: Fitness for purpose of the system*