BSI Standards Publication

Copper and copper alloys — Plumbing fittings

Part 2: Compression fittings for use with copper tubes

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National foreword

This British Standard is the UK implementation of EN 1254-2:2021. It supersedes BS EN 1254-2:1998, which is withdrawn.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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Kupfer und Kupferlegierungen - Fittings - Teil 2: Klemmverbinder für Kupferrohre

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

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

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European foreword

This document (EN 1254-2:2021) 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of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.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 1254-2:1998.

The main changes compared to EN 1254-2:1998 are:

— separation of test methods into part 20.

This part of the standard (EN 1254-2) 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*

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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 the test results and a designation system for compression fittings for connecting with copper tubes. Compression fittings exist with sealing elements - metallic and/or non-metallic - called non manipulative (commonly referenced as type A) and without sealing elements, called manipulative (commonly referenced as type B). For the purposes of joining copper tubes, the fitting ends have a nominal diameter from 6 mm to 108 mm. The compression fittings are designed for a service lifetime up to fifty years.

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.

Compression fitting ends, Type A, are used with copper tubes to EN 1057 in all material hardness conditions.

Compression fittings, Type A, will possibly require an internal support when used with R220 (annealed) copper tube and the manufacturer's advice should be sought.

Compression fitting ends, Type B, are used with R220 (annealed) or R250 (half-hard) copper tube to EN 1057.

Compression fittings, Type B, may be used with R290 (hard) copper tube and the manufacturer's advice should be sought.

Adaptor fittings for use with copper tubes may combine compression ends with fitting ends defined in the other parts of EN 1254.

Compression fittings for use with copper tubes may also have flanged end connections according to EN 1092-3.

Compression fittings for use with copper tubes 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:

a) 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.

b) drainage systems:

   — fire protection systems including sprinkler systems according to EN 12845;

   — supply systems for points of consumption with liquid fuels according to EN 12514.