SLOVENSKI STANDARD
SIST EN ISO 21003-3:2009/oprA1:2021

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Večslojni cevni sistemi za napeljave z vročo in hladno vodo v stavbah - 3. del: Fitingi - Dopolnilo A1 (ISO 21003-3:2008/DAM 1:2020)

Multilayer piping systems for hot and cold water installations inside buildings - Part 3: Fittings - Amendment 1 (ISO 21003-3:2008/DAM 1:2020)

Mehrschichtverbund-Rohrleitungssysteme für die Warm- und Kaltwasserinstallation innerhalb von Gebäuden - Teil 3: Formstücke - Änderung 1 (ISO 21003-3:2008/DAM 1:2020)

Systèmes de canalisations multicouches pour installations d'eau chaude et froide à l'intérieur des bâtiments - Partie 3: Raccords - Amendement 1 (ISO 21003-3:2008/DAM 1:2020)

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ICS:

23.040.45	Fitingi iz polimernih materialov	Plastics fittings
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

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DRAFT AMENDMENT

ISO 21003-3:2008/DAM 1

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Multilayer piping systems for hot and cold water installations inside buildings —

Part 3: Fittings

AMENDMENT 1

Systèmes de canalisations multicouches pour installations d'eau chaude et froide à l'intérieur des bâtiments —

Partie 3: Raccords

AMENDEMENT 1

ICS: 23.040.45; 91.140.60

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This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 155, *Plastics piping systems and ducting systems*, in collaboration with ISO Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 2, *Plastics pipes and fittings for water supplies*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 15875 series can be found on the ISO website.

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Multilayer piping systems for hot and cold water installations inside buildings —

Part 3: Fittings

AMENDMENT 1

Page 1, Clause 2

Add the normative references

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 2768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications*

ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 6509-1, *Corrosion of metals and alloys — Determination of dezincification resistance of copper alloys with zinc — Part 1: Test method*

ISO 6509-2, *Corrosion of metals and alloys — Determination of dezincification resistance of copper alloys with zinc — Part 2: Assessment criteria*

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

Delete the normative reference

EN 1254-3, *Copper and copper alloys — Plumbing fittings — Part 3: Fittings with compression ends for use with plastics pipes*

Page 3, Clause 3.1

Replace the existing Clause 3.1 with the new Clause 3.1 below.

3.1
fitting
piping system component which connects two or more pipes and/or fittings together without any further function.

Note 1 to entry: Examples of mechanical fittings are compression fittings, radial press fittings, axial press fittings, flanged fittings, flat seat union fittings and push-fit fittings.

Note 2 to entry: Examples of fusion fittings are socket fusion fittings, electrofusion fittings, fittings with incorporated inserts and solvent-cemented fittings.

Page 4, Clause 5.3

Replace the existing Clause 5.3 with the new Clause 5.3 below.

5.3 Metallic fitting material

Metallic materials for fittings intended to be used with components conforming to ISO 15875 shall be either copper alloys or stainless steel alloys. The alloys shall be defined according to a standard or regulatory document.

NOTE Examples for such standards and regulatory documents are listed in the bibliography.

For copper alloys, the fittings made thereof have to comply with the corrosion resistance requirements according to Clause 9.2

Page 4, Clause 6.1

Replace the existing Clause 6.1 with the new clause below.

6.1 Appearance

6.1.1 Appearance of plastic fittings

When viewed without magnification, the internal and external surfaces of fittings shall be smooth, clean and free from scoring, cavities and other surface defects to an extent that would prevent conformance with this standard. The material shall not contain visible impurities. Slight variations in appearance of the colour shall be permitted. Each end of a fitting shall be square to its axis.

6.1.2 Appearance of metal fittings

When viewed without magnification, the internal and external surfaces of fittings shall be clean, free from any residues from the production (e.g. free from cast sand, grease or release agent) and shall have no sharp edges or cracks.

Page 4, Clause 6.2

Replace the existing title of Clause 6.2 with the new title below.

6.2 Opacity of plastic fittings

Page 4, Clause 7.1.1, first sentence

Replace the existing 1st sentence of Clause 71.1 with the new two sentences below

Dimensions of plastic fittings shall be measured in accordance with ISO 3126.

Dimensions of metal fittings shall be measured in accordance with ISO 2768-1 and/or part 2.

Page 5, Clause 7.3

Replace the existing Clause 7.3 with the new Clause 7.3 below.

7.3 Dimensions of metallic fittings - minimum wall thickness of fittings made of copper alloys

The minimum wall thickness shall be measured with a calibrated micrometer or equivalent instrument. The wall thickness shall be measured at three or more discrete places and efforts shall be made to find the minimum.

The minimum wall thickness at points A, B and C of the fitting (see Annex B, Figure B.1, Figure B.2 and Figure B.3) shall be in accordance with Annex B, Table B.1 and Figure B.1, B.2 and B.3 for fittings from rod, pressings or castings

The minimum wall thickness specified does not apply along the cone angle or to the thickness of the loose ring or sleeve where such a ring or sleeve has been or is intended to be deformed to form a seal. It also does not apply to internal pipe supports.

Page 6, Clause 9,

Replace the existing Clause 9 with the new clause below

9 Physical and chemical characteristics of fittings

9.1 Physical and chemical characteristics of plastics fittings

9.1.1 Plastics fitting materials specified in reference product standards

The relevant characteristics shall be determined.

9.1.2 Plastics fitting materials not specified in reference product standards

The relevant characteristics shall be determined in accordance with Table 2.

9.2 Physical and chemical characteristics of metallic fittings

9.2.1 Fittings made of copper alloys - resistance to stress corrosion

Fittings made of copper alloys shall be resistant to stress corrosion.

Fittings manufactured from copper-tin-zinc alloys (e.g. CuSnZnPb) and copper-zinc-silicon alloys containing ≥ 2% Si are deemed to be resistant to stress corrosion.

Fittings manufactured from CuZn-alloys are deemed to be resistant to stress corrosion when the product has a hardness HBW 2,5/62,5 ≤ 110 measured according to ISO 6506-1 or a hardness HV_5 ≤ 134 measured according to ISO 6507-1.

Other fittings manufactured from copper alloys with a zinc content of 10 % or greater not mentioned above shall be tested according to ISO 6957 using a test solution of pH 9.5 without prior pickling. The fittings shall not show any evidence of cracking.

9.2.2 Fittings made of copper alloys - resistance to dezincification

This requirement only applies where a fitting made of copper alloy is declared to be resistant to dezincification.

The resistance to dezincification of alloy fittings can be obtained by the correct material selection and processing of that material.