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**Cevni sistemi iz polimernih materialov za uporabo v industriji - Akrilonitril butadienstilen (ABS), nemehčan polivinilklorid (PVC-U) in kloriran polivinilklorid (PVC-C) - Zahteve za dele cevovoda in cevni sistem - Metrične serije - Dopolnilo A1 (ISO 15493:2003/DAmD 1:2015)**

Plastics piping systems for industrial applications - Acrylonitrile-butadiene-styrene (ABS), unplasticized poly(vinyl chloride) (PVC-U) and chlorinated poly(vinyl chloride) (PVC-C) - Specifications for components and the system - Metric series - Amendment 1 (ISO 15493:2003/DAmD 1:2015)

Kunststoff-Rohrleitungssysteme für industrielle Anwendungen - Acrylnitril-Butadien-Styrol (ABS), weichmacherfreies Polyvinylchlorid (PVC-U) und chloriertes Polyvinylchlorid (PVC-C) - Anforderungen an Rohrleitungsteile und das Rohrleitungssystem - Metrische Reihen (ISO 15493:2003/DAmD 1:2016)

Systèmes de canalisations en matières plastiques pour les applications industrielles - Acrylonitrile-butadiène-styrène (ABS), poly(chlorure de vinyle) non plastifié (PVC-U) et poly(chlorure de vinyle) chloré (PVC-C) - Spécifications pour les composants et le système - Série métrique - Amendement 1 (ISO 15493:2003/DAmD 1:2015)

**Ta slovenski standard je istoveten z: EN ISO 15493:2003/prA1**

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**ICS:**

23.040.01	Deli cevovodov in cevovodi na splošno	Pipeline components and pipelines in general
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**SIST EN ISO 15493:2003/oprA1:2016 en**



# DRAFT AMENDMENT

## ISO 15493:2003/DAM 1

ISO/TC 138/SC 3

Secretariat: UNI

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### Plastics piping systems for industrial applications — Acrylonitrile-butadiene-styrene (ABS), unplasticized poly(vinyl chloride) (PVC-U) and chlorinated poly(vinyl chloride) (PVC-C) — Specifications for components and the system — Metric series

#### AMENDMENT 1

*Systèmes de canalisations en matières plastiques pour les applications industrielles — Acrylonitrile-butadiène-styrène (ABS), poly(chlorure de vinyle) non plastifié (PVC-U) et poly(chlorure de vinyle) chloré (PVC-C) — Spécifications pour les composants et le système — Série métrique*

*AMENDEMENT 1*

ICS: 23.040.01

#### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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## Foreword

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Amendment 1:2015 to ISO 15493:2003 was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 3, *Plastics pipes and fittings for industrial applications*.

## Plastics piping systems for industrial applications — Acrylonitrile-butadiene styrene (ABS), unplasticized poly(vinyl chloride) (PVC-U) and chlorinated poly(vinyl chloride) (PVC-C) — Specifications for components and the system - Metric series – Amendment 1:2015

In order to adapt ISO 15493:2003 to the current industry requirements and practices this amendment changes the following clauses:

### 5.1 General:

Delete the first paragraph and insert the following new text:

“The material from which the components are made shall be ABS, PVC-U or PVC-C, as applicable, to which are added those additives that are needed to facilitate the manufacture of pipes, fittings, valves and appurtenances conforming to this International Standard.”

### 5.2 Hydrostatic strength properties:

Add a note:

“Note: In some cases the component manufacturer may be regarded as the raw material producer.”

### 11 Adhesives:

Delete the two paragraphs and insert the following new text:

“The adhesive(s) shall be as recommended by the manufacturer of the components.

The adhesive(s) shall not cause the test assembly to fail to conform to the requirements given in the applicable annex to this International Standard.”

#### C.1.5.1 Density and chlorine content:

Delete table C.1 and insert this new table C1.

**Table C.1 — Density and chlorine content of PVC-C**

Characteristic	Requirement <sup>a</sup>	Test temperature	Test method
Density, $\rho$ (kg/m <sup>3</sup> )	$1\,450 \leq \rho \leq 1\,650$	23 °C	ISO 3514
Chlorine content	$\geq 55$ % by mass	23 °C	ISO 1158
<sup>a</sup> Conformity to these requirements shall be declared by the raw-material producer.			

**C.1.5.2 Thermal stability:**

Delete the two paragraphs and insert this new text:

“For pipes, the thermal stability of the material is regarded as proven if the pipe meets the requirements of the internal-pressure test in accordance with ISO 1167-1 at 95 °C,  $\geq 8\ 760$  h and 3,6 MPa (for test conditions, see Table C.9).

For fittings, the thermal stability of the material is regarded as proven if the fitting meets the requirements of the internal-pressure test in accordance with ISO 1167 (together with ISO 12092) at 90 °C,  $\geq 8\ 760$  h and 3,1 MPa (for test conditions, see Table C.12).”

**C.3.2 Dimensions of sockets for solvent cementing**

Delete the second sentence “The dimensions of tapered sockets for solvent cementing (see Figure C.4) shall be as specified in Table C.5.”

**C.3.3.2.4 Diameters and lengths of tapered sockets:**

Delete clause C.3.3.2.4, figure C4 and table C5

**C.4.1.1 Resistance to internal pressure**

Delete Table C.8 and insert this new Table C.8

**Table C.8 — Requirements for internal-pressure testing of pipes**

Characteristic	Requirement	Test conditions			Test method
		Hydrostatic (hoop) stress MPa	Time h	Number of test pieces	
Resistance to internal pressure at 20 °C	No failure during test period	43,0	$\geq 1$	3	ISO 1167
Resistance to internal pressure at 95 °C		5,6	$\geq 165$	3	ISO 1167
Resistance to internal pressure at 95 °C		4,6	$\geq 1\ 000$	3	ISO 1167

## ISO 15493:2003/DAM 1:2015

## C.4.2 Mechanical characteristics of fittings:

Delete table C.11 and insert this new table C.11

**Table C.11 — Requirements for internal-pressure testing of fittings**

Characteristic	Requirement	Test conditions			Test method <sup>a</sup>
		Hydrostatic (hoop) stress MPa	Time h	Number of test pieces	
Resistance to internal pressure at 20 °C	No failure during test period	33.6	≥ 1	3	ISO 1167
Resistance to internal pressure at 60 °C		21.1	≥ 1	3	ISO 1167
Resistance to internal pressure at 80 °C		6.9	≥1 000	3	ISO 1167

<sup>a</sup> Fittings shall be prepared in accordance with ISO 12092 and tested in accordance with ISO 1167.

## C.5.1 Physical characteristics of pipes

## Table C.13:

Add Note a to Vicat Softening Temperature:

Note a: test samples may be annealed prior to testing at conditions recommended by the manufacturer

## C.5.2.1 General:

## Table C.14:

Insert Note c to Vicat Softening Temperature:

Note c: test samples may be annealed prior to testing at conditions recommended by the manufacturer