
Kovinski industrijski cevovodi - 2. del: Materiali - Dopolnilo A8

Metallic industrial piping - Part 2: Materials

Metallische industrielle Rohrleitungen - Teil 2: Werkstoffe

Tuyauteries industrielles métalliques - Partie 2: Matériaux

Ta slovenski standard je istoveten z: EN 13480-2:2017/prA8[SIST EN 13480-2:2018/oprA8:2020](https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcfd/sist-en-13480-2-2018-opra8-2020)<https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcfd/sist-en-13480-2-2018-opra8-2020>**ICS:**

23.040.10	Železne in jeklene cevi	Iron and steel pipes
77.140.75	Jeklene cevi in cevni profili za posebne namene	Steel pipes and tubes for specific use

SIST EN 13480-2:2018/oprA8:2020 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13480-2:2018/oprA8:2020](https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcf/sist-en-13480-2-2018-opra8-2020)

<https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcf/sist-en-13480-2-2018-opra8-2020>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 13480-2:2017
prA8

May 2020

ICS 23.040.01

English Version

Metallic industrial piping - Part 2: Materials

Tuyauteries industrielles métalliques - Partie 2:
Matériaux

Metallische industrielle Rohrleitungen - Teil 2:
Werkstoffe

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 267.

This draft amendment A8, if approved, will modify the European Standard EN 13480-2:2017. If this draft becomes an amendment, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for inclusion of this amendment into the relevant national standard without any alteration.

This draft amendment was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

Contents	Page
European foreword.....	3
1 Modification to 3.1.2, temperature adjustment term T_S.....	4
2 Modification to 3.1.3, design reference temperature T_R.....	4
3 Modification to 3.2, Symbols and units	4
4 Modification to Clause 4, Requirements for materials to be used for pressure containing parts in industrial piping.....	5
5 Modification to Annex A, Grouping system for steels for pressure equipment.....	6
6 Modification to Annex B.1, General	8
7 Modification to Annex B.2.2.1, General	8
8 Modification to Annex B.2.2.6, Temperature adjustment.....	8

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13480-2:2018/oprA8:2020](https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcf/sist-en-13480-2-2018-oprA8-2020)
<https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcf/sist-en-13480-2-2018-oprA8-2020>

European foreword

This document (EN 13480-2:2017/prA8:2020) has been prepared by Technical Committee CEN/TC 267 “Industrial piping and pipelines”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive, see informative Annex ZA, which is an integral part of EN 13480-2:2017.

This document includes the text of the amendment itself. The amended/corrected pages of EN 13480-2:2017 will be published as Issue 4 of the European Standard.

Amendments EN 13480-2:2017/prA4 to EN 13480-2:2017/prA6 are withdrawn from the work program of Technical Committee CEN/TC 267 “Industrial piping and pipelines” following CEN Rules related to the time limit for activating Preliminary Work Items.

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

[SIST EN 13480-2:2018/oprA8:2020](https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcfd/sist-en-13480-2-2018-opra8-2020)

<https://standards.iteh.ai/catalog/standards/sist/e5baf5c-38e1-4f8a-9078-043f71eedcfd/sist-en-13480-2-2018-opra8-2020>

EN 13480-2:2017/prA8:2020 (E)

1 Modification to 3.1.2, temperature adjustment term T_S

Replace " T_S " by " T_A ". Definition 3.1.2 shall read as follows:

"3.1.2**temperature adjustment term T_A**

temperature relevant to the calculation of the design reference temperature T_R and dependent on the calculated tensile membrane stress at the appropriate minimum metal temperature

Note 1 to entry Values for temperature adjustment term T_A are given in Table B.2-12.

Note 2 to entry For tensile membrane stress reference is made to EN 13480-3:2017, Clause 12."

2 Modification to 3.1.3, design reference temperature T_R

Replace " T_S " by " T_A ". Definition 3.1.3 shall read as follows:

"3.1.3**design reference temperature T_R**

temperature used for determining the impact energy requirements and determined by adding the temperature adjustment T_A to the minimum metal temperature T_M

$$T_R = T_M + T_A$$

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3 Modification to 3.2, Symbols and units

SIST EN 13480-2:2018/oprA8:2020

Replace " T_S " by " T_A ". In Table 3.2-1, the line related to the "temperature adjustment term" shall read as follows:

043f71eedcfd/sist-en-13480-2-2018-oprA8-2020

"

T_A	temperature adjustment term	°C
-------	-----------------------------	----

".

4 Modification to Clause 4, Requirements for materials to be used for pressure containing parts in industrial piping

In 4.1.7, replace Table 4.1-1 with the following:

“

Table 4.1-1 — Maximum carbon, phosphorus and sulphur content for steel intended for welding or forming

Material group (according to Table A-1)	Maximum content of cast analysis		
	% C	% P	% S
Steels (1 to 6 and 9)	0,23 ^a	0,035	0,025
Ferritic stainless steels (7.1)	0,08	0,040	0,015
Martensitic stainless steels (7.2)	0,06	0,040	0,015
Austenitic stainless steels (8.1) (8.3)	0,08	0,045	0,015 ^b
Austenitic stainless steels (8.2)	0,10	0,035	0,015
Austenitic-ferritic stainless steels (10)	0,030	0,035	0,015

^a Maximum content of product analysis 0,25 %.

^b For products to be machined a controlled sulphur content of 0,015 % to 0,030 % is permitted by agreement provided the resistance to corrosion is satisfied for the intended purpose.

“

5 Modification to Annex A, Grouping system for steels for pressure equipment

In Annex A, replace Table A.1 with the following:

"Table A.1 — Grouping system for steels (extract from CEN ISO/CR 15608:2017)

Group	Sub-group	Type of steel
1		Steels with a specified minimum yield strength $R_{eH} \leq 460$ MPa ^a and with analysis in %: $C \leq 0,25$ $Si \leq 0,60$ $Mn \leq 1,70$ $Mo \leq 0,70^b$ $S \leq 0,045$ $P \leq 0,045$ $Cu \leq 0,40^b$ $Ni \leq 0,5^b$ $Cr \leq 0,3$ (0,4 for castings) ^b $Nb \leq 0,05$ $V \leq 0,12^b$ $Ti \leq 0,05$
	1.1	Steels with a specified minimum yield strength $R_{eH} \leq 275$ MPa
	1.2	Steels with a specified minimum yield strength $275 \text{ MPa} < R_{eH} \leq 360$ MPa
	1.3	Normalized fine grain steels with a specified minimum yield strength $R_{eH} > 360$ MPa
	1.4	Steels with improved atmospheric corrosion resistance whose analysis may exceed the requirements for the single elements as indicated under 1
2		Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength $R_{eH} > 360$ MPa
	2.1	Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength $360 \text{ MPa} < R_{eH} \leq 460$ MPa
	2.2	Thermomechanically treated fine grain steels and cast steels with a specified minimum yield strength $R_{eH} > 460$ MPa
3		Quenched and tempered steels and precipitation hardened steels except stainless steels with a specified minimum yield strength $R_{eH} > 360$ MPa
	3.1	Quenched and tempered steels with a specified minimum yield strength $360 \text{ MPa} < R_{eH} \leq 690$ MPa
	3.2	Quenched and tempered steels with a specified minimum yield strength $R_{eH} > 690$ MPa
	3.3	Precipitation hardened steels except stainless steels
4		Low vanadium alloyed Cr-Mo-(Ni) steels with $Mo \leq 0,7$ % and $V \leq 0,1$ %
	4.1	Steels with $Cr \leq 0,3$ % and $Ni \leq 0,7$ %

	4.2	Steels with $Cr \leq 0,7 \%$ and $Ni \leq 1,5 \%$
5		Cr-Mo steels free of vanadium with $C \leq 0,35 \%$ ^c
	5.1	Steels with $0,75 \% \leq Cr \leq 1,5 \%$ and $Mo \leq 0,7 \%$
	5.2	Steels with $1,5 \% < Cr \leq 3,5 \%$ and $0,7 < Mo \leq 1,2 \%$
	5.3	Steels with $3,5 \% < Cr \leq 7,0 \%$ and $0,4 < Mo \leq 0,7 \%$
	5.4	Steels with $7,0 \% < Cr \leq 10 \%$ and $0,7 < Mo \leq 1,2 \%$
6		High vanadium alloyed Cr-Mo-(Ni) steels
	6.1	Steels with $0,3 \% \leq Cr \leq 0,75 \%$, $Mo \leq 0,7 \%$ and $V \leq 0,35 \%$
	6.2	Steels with $0,75 \% < Cr \leq 3,5 \%$, $0,7 \% < Mo \leq 1,2 \%$ and $V \leq 0,35 \%$
	6.3	Steels with $3,5 \% < Cr \leq 7,0 \%$, $Mo \leq 0,7 \%$ and $0,45 \% \leq V \leq 0,55 \%$
	6.4	Steels with $7,0 \% < Cr \leq 12,5 \%$, $0,7 \% < Mo \leq 1,2 \%$ and $V \leq 0,35 \%$
7		Ferritic, martensitic or precipitation hardened stainless steels with $C \leq 0,35 \%$ and $10,5 \% \leq Cr \leq 30 \%$
	7.1	Ferritic stainless steels
	7.2	Martensitic stainless steels
	7.3	Precipitation hardened stainless steels
8		Austenitic steels
	8.1	Austenitic stainless steels with $Cr \leq 19 \%$
	8.2	Austenitic stainless steels with $Cr > 19 \%$
	8.3	Manganese austenitic stainless steels with $4 \% < Mn \leq 12 \%$
9		Nickel alloyed steels with $Ni \leq 10 \%$
	9.1	Nickel alloyed steels with $Ni \leq 3 \%$
	9.2	Nickel alloyed steels with $3 \% < Ni \leq 8 \%$
	9.3	Nickel alloyed steels with $8 \% < Ni \leq 10 \%$
10		Austenitic ferritic stainless steels (duplex)
	10.1	Austenitic ferritic stainless steels with $Cr \leq 24 \%$ and $Ni \leq 4 \%$
	10.2	Austenitic ferritic stainless steels with $Cr > 24 \%$ and $Ni \geq 4 \%$
	10.3	Austenitic ferritic stainless steels with $Cr > 24 \%$ and $Ni \leq 4 \%$
a	In accordance with the specification of the steel product standards, R_{eH} may be replaced by $R_{p0,2}$ or $R_{t0,5}$.	
b	A higher value is accepted provided that $Cr + Mo + Ni + Cu + V \leq 0,75 \%$.	
c	"Free of vanadium" means not deliberately added to the material.	

“