



SLOVENSKI STANDARD
SIST EN 13445-2:2014/oprA4:2017
01-januar-2017

Neogrevane tlačne posode - 2. del: Materiali - Dopolnilo A4

Unfired pressure vessels - Part 2: Materials

Unbefeuerte Druckbehälter - Teil 2: Werkstoffe

Réipients sous pression non soumis à la flamme - Partie 2 : matériaux

Ta slovenski standard je istoveten z: EN 13445-2:2014/prA4:2016

<https://standards.iteh.ai/catalog/standards/sist/22adde31-f066-48e7-b800-d48c51689649/sist-en-13445-2-2014-a3-2018>

ICS:

23.020.32 Tlačne posode Pressure vessels

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Unfired pressure vessels - Part 2: Materials

Réceptifs sous pression non soumis à la flamme -
Partie 2 : matériaux

Unbefeuerte Druckbehälter - Teil 2: Werkstoffe

This draft amendment is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 54.

This draft amendment A4, if approved, will modify the European Standard EN 13445-2:2014. 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.

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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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (EN 13445-2:2014/prA4:2016) has been prepared by Technical Committee CEN/TC 54 “Unfired Pressure vessels”, the secretariat of which is held by BSI.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a mandate 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(s), see informative Annex ZA, which is an integral part of EN 13445-2:2014.

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EN 13445-2:2014/prA4:2016 (E)

1 Modifications to B.2.2.4 Bolts and nuts

Replace the text in B.2.2.4 with the following:

"Requirements for prevention of brittle fracture are specified in Tables B.2-8, B.2-9 und B.2-10.

For other bolts and nuts the following applies:

- a specified impact energy of minimum 40 J is required at $T_{KV} = RT$ for $T_M = \geq -10$ °C;
- if T_M is lower than -10 °C, specified impact energy of minimum 40 J is required at $T_{KV} \leq T_M$;
- bolting material with a design temperature below -160 °C shall be impact tested at -196 °C."

Replace Table B.2-8 with the following:

"Table B.2-8 — General requirements for prevention of brittle fracture with reference thickness for nuts and bolts for $T_M \geq -10$ °C"

European Standard	Type of material ^{a)}	Thickness limitation	Impact test for $T_M \geq -10$ °C	Test temperature / value
EN 10269:2013	All steels	According to EN 10269:2013	According to EN 10269:2013, Table 4	According to EN 10269:2013, Table 4
EN ISO 898-1:2013	5.6	$M \leq 39$	$M \geq 16$	RT ^{b)} / 40 J
	8.8	$M \leq 39$	$M \geq 16$	RT ^{b)} / 52 J
EN ISO 898-2:2012	5	$M \leq 39$	None	—
	8	$M \leq 39$	None	—
a) Starting material shall comply with EN 10269:2013. Bolting according to EN 898 is suitable only for temperatures up to 50 °C (see 4.2.2.1).				
b) Testing in accordance with EN 10269:2013. Additional testing is required to comply with $T_M -20$ °C in accordance with EN ISO 898-1:2013, 9.14.				

"

Replace Table B.2-9 with the following:

"Table B.2-9 — General requirements for prevention of brittle fracture with reference thickness for nuts and bolts, bolting material according to EN 10269:2013

Type of material	Thickness limitation	Impact test (impact energy of minimum 40 J)	T_M
1.4307, 1.4301, 1.4303, 1.4404, 1.4401, 1.4948, 1.4919, 1.4941	According to EN 10269:2013, Table 10	According to EN 10269:2013, Table 4	-196 °C
1.4429, 1.4910, 1.4980	According to EN 10269:2013, Table 10	According to EN 10269:2013, Table 4	-273 °C
1.5525, 1.1133	According to EN 10269:2013, Table 10	According to EN 10269:2013, Table 10	-20 °C
1.7218	$d \leq 60$ mm	According to EN 10269:2013, Table 10	-60 °C
	$60 < d \leq 100$ mm		-50 °C
1.6582, 1.6580, 1.7225	According to EN 10269:2013, Table 10	According to EN 10269:2013, Table 10	-40 °C
1.5680	$d \leq 40$ mm	According to EN 10269:2013, Table 10	-120 °C
	$40 < d \leq 75$ mm		-90 °C
1.5662	According to EN 10269:2013, Table 10	According to EN 10269:2013, Table 10	-196 °C

"

Replace in Table B.2-10 with the following

" Table B.2-10 — General requirements for prevention of brittle fracture with reference thickness for nuts and bolts

Standard	Type of material ^{a)}	Thickness limitation	T_M	Impact test
EN ISO 3506-1:2009	A2, A3	50	- 200 °C	None
		70		
EN ISO 3506-1:2009	A4, A5	50	- 60 °C ^{b)}	None
		70		
EN ISO 3506-2:2009	A2, A3, A4, A5	50	- 200 °C	None
		70		

a) Nuts and bolts shall comply with EN 13445-2, F.2.
b) -196 °C for studs

"

2 Modification to Table E.2-1

Add to the lines 174, 176, 178, 183, 186 and 189 the following note i:

"For 1.4923 +QT2, 1.4913 +QT, 1.4307 +C800, 1.4303 +C800, 1.4404 +C800 and 1.4401 +C800: These grades are acceptable as long as the relevant safety factors for bolting specified in Part 3 are applied."