

Elastomeric seals — Materials requirements for pipe joint seals used in water and drainage applications —

Part 4: Cast polyurethane sealing elements

The European Standard EN 681-4:2000, with the incorporation of amendments A1:2002 and A2:2005, has the status of a British Standard

ICS 23.040.80

National foreword

This British Standard is the official English language version of EN 681-4:2000, including amendments A1:2002 and A2:2005.

The start and finish of text introduced or altered by CEN amendment is indicated in the text by tags **A1** **A1**. Tags indicating changes to CEN text carry the number of the CEN amendment. For example, text altered by CEN amendment A1 is indicated by **A1** **A1**.

The UK participation in its preparation was entrusted to Technical Committee PRI/70, Elastomeric seals, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

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English version

**Elastomeric seals – Materials requirements for pipe joint seals
used in water and drainage applications – Part 4: Cast
polyurethane sealing elements**
(includes amendments A1:2002 and A2:2005)

Garnitures d'étanchéité en caoutchouc – Spécifications des
matériaux pour garnitures d'étanchéité pour joints de
canalisation utilisés dans le domaine de l'eau et de
l'évacuation – Partie 4: polyuréthane moulé
(inclut les amendements A1:2002 et A2:2005)

Elastomer-Dichtungen – Werkstoff-Anforderungen für
Rohrleitungs-Dichtungen für Anwendungen in der
Wasserversorgung und Entwässerung – Teil 4:
Dichtelemente aus gegossenem Polyurethan
(enthält Änderungen A1:2002 und A2:2005)

This European Standard was approved by CEN on 3 June 2000. Amendment A1 was approved by CEN on 25 February 2002 and Amendment A2 was approved by CEN on 14 July 2005.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Contents

	Page
Foreword	3
1 Scope	5
2 Normative references	5
3 Material requirements	6
4 Requirements	6
5 Test pieces and temperature	9
6 Factory production control	10
7 Factory product control tests	10
8 Marking	11
Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Directive	12

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 208, Elastomeric seals for joints in pipework and pipelines, the Secretariat of which is held by BSI.

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 January 2001, and conflicting national standards shall be withdrawn at the latest by January 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

A European Standard is will be prepared for microbiological deterioration requirements and when published it is intended that materials comply with the requirements of that standard.

It is recommended that third party inspection be carried out at least twice a year without previous notice, the assessment body complying with the requirements of EN 45011 and EN 45012 or equivalent.

Part 1 of this standard is based on ISO 4633 and ISO 9631, bringing these two sets of requirements (for cold and hot water respectively) under one specification. The major changes from ISO 4633 and ISO 9631 have been to incorporate requirements for effect on water quality and ozone resistance. The emphasis in respect of low temperature testing has moved away from hardness measurement to compression set, which is more discriminating.

Part 2 has been prepared by TC 208 in response to requests from CEN/TC 155 for a material specification for thermoplastic elastomer seals for use in conjunction with non-pressure thermoplastic pipe systems.

Part 3 has been prepared in response to those sections of the pipeline industry which employ cellular seals of vulcanized rubber.

This standard should be used where appropriate with product standards which specify performance standards which specify performance requirements for joints.

Seals and pipe joints using polyurethane elastomers should be designed and tested to take into account the different requirements compared with those specified in Part 1 of this standard.

Foreword to amendment A1

This document EN 681-4:2000/A1:2002 has been prepared by Technical Committee CEN/TC 208, Elastomeric seals for joints in pipework and pipelines, the Secretariat of which is held by BSI.

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 September 2002, and conflicting national standards shall be withdrawn at the latest by December 2003.

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 this document.

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Foreword to amendment A2

This document (EN 681-4:2000/A2:2005) has been prepared by Technical Committee CEN/TC 208 “Elastomeric seals for joints in pipework and pipelines”, the secretariat of which is held by BSI.

This Amendment to the European Standard EN 681-4:2000 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This document amends EN 681-4:2000, including amendment A1:2002.

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