Adhesives for paper and board, packaging and disposable sanitary products - Determination of low temperature flexibility or cold crack temperature



#### **EESTI STANDARDI EESSÕNA**

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	This Estonian standard EVS-EN 12703:2012 consists of the English text of the European standard EN 12703:2012.
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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
, and a second s	Date of Availability of the European standard is 21.03.2012.
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# EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 12703

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ICS 83.180

Supersedes EN 12703:1999

#### **English Version**

# Adhesives for paper and board, packaging and disposable sanitary products - Determination of low temperature flexibility or cold crack temperature

Adhésifs pour papier, carton, emballage et produits sanitaires jetables - Détermination de la flexibilité à basse température ou de la température de fissuration à froid

Klebstoffe für Papier, Verpackung und Hygieneprodukte -Bestimmung des Kaltbruchverhaltens oder der Kaltbruchtemperatur

This European Standard was approved by CEN on 5 February 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists 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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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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#### **Foreword**

This document (EN 12703:2012) has been prepared by Technical Committee CEN/TC 193 "Adhesives", the secretariat of which is held by AENOR.

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 2012, and conflicting national standards shall be withdrawn at the latest by September 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12703:1999.

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According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### 1 Scope

This European Standard specifies a method to determine whether a film of adhesive of given dimensions will craze, crack or fracture at a specified temperature.

Alternatively, the temperature at which the film will craze, crack or fracture can be determined.

The method described can be used either as a quality control test or to compare the flexibility of adhesives at low temperatures.

# 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 923, Adhesives — Terms and definitions

EN 1067, Adhesives — Examination and preparation of samples for testing

EN ISO 15605, Adhesives — Sampling (ISO 15605)

ISO 554, Standard atmospheres for conditioning and/or testing — Specifications

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 923 apply.

#### 4 Principle

An unsupported film of the adhesive, after conditioning, is bent through 180° over specified diameter cylindrical mandrel.

The test piece is then examined for signs of fracture, crazing or cracking.

The test may be carried out either as a pass/fail test or at successively lower temperatures until a failure occurs.

# 5 Apparatus

**5.1 Bend test apparatus**, as shown in Figure 1. The mandrel shall be made of rigid and suitably corrosion-resistant material, e.g. stainless steel.