

Rubber and plastics hoses and tubing - Measurement of flexibility and stiffness - Part 3: Bending tests at high and low temperatures (ISO 10619-3:2011)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

**Rubber and plastics hoses and tubing - Measurement of
flexibility and stiffness - Part 3: Bending tests at high and low
temperatures (ISO 10619-3:2011)**

Tuyaux et tubes en caoutchouc et en plastique - Mesurage
de la flexibilité et de la rigidité - Partie 3: Essais de
courbure à des températures basses et élevées (ISO
10619-3:2011)

Gummi- und Kunststoffschläuche mit und ohne Einlage -
Bestimmung der Biegsamkeit und Steifigkeit - Teil 3:
Biegeprüfungen bei hohen und tiefen Temperaturen (ISO
10619-3:2011)

This European Standard was approved by CEN on 30 November 2011.

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

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Foreword

This document (EN ISO 10619-3:2011) has been prepared by Technical Committee ISO/TC 45 “Rubber and rubber products” in collaboration with Technical Committee CEN/TC 218 “Rubber and plastics hoses and hose assemblies” 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of an identical text or by endorsement, at the latest by June 2012, and conflicting national standards shall be withdrawn at the latest by June 2012.

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Endorsement notice

The text of ISO 10619-3:2011 has been approved by CEN as a EN ISO 10619-3:2011 without any modification.

Introduction

This method was originally included in ISO 1746¹⁾. This part of ISO 10619 allows for samples to be tested at sub-ambient temperatures and at elevated temperatures of up to 200 °C.

1) Withdrawn.

Rubber and plastics hoses and tubing — Measurement of flexibility and stiffness —

Part 3: Bending tests at high and low temperatures

WARNING — Persons using this part of ISO 10619 should be familiar with normal laboratory practice. This part of ISO 10619 does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This part of ISO 10619 specifies a method for the determination of the bending characteristics of rubber and plastics hoses and tubing, including the force required for bending, over a range of temperatures from $-60\text{ }^{\circ}\text{C}$ to $+200\text{ }^{\circ}\text{C}$. The nature of the apparatus, however, limits its applicability to rubber and plastics hoses and tubing of small internal diameter, i.e. up to 12,5 mm.

2 Normative references

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

ISO 4671, *Rubber and plastics hoses and hose assemblies — Methods of measurement of the dimensions of hoses and the lengths of hose assemblies*

ISO 8330, *Rubber and plastics hoses and hose assemblies — Vocabulary*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 8330 and the following apply.

3.1

bending

shaping or forcing something straight into a curve or angle at a specified temperature

3.2

flexibility

ease of bending a hose without it being damaged by kinking, collapse, breaking or cracking

NOTE A hose can be bent around a mandrel, for example.

3.3

stiffness

resistance of a hose to bending