

First edition  
2018-11

Corrected version  
2019-09

---

---

## **Additional lubricants for male natural rubber latex condoms — Effect on condom strength**

*Lubrifiants supplémentaires pour préservatifs masculins en latex de caoutchouc naturel — Effet sur la résistance du préservatif*



Reference number  
ISO 19671:2018(E)

© ISO 2018

This document is a preview generated by ERS



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

	Page
Foreword.....	iv
Introduction.....	v
<b>1 Scope.....</b>	<b>1</b>
<b>2 Normative references.....</b>	<b>1</b>
<b>3 Terms and definitions.....</b>	<b>1</b>
<b>4 Principle.....</b>	<b>2</b>
<b>5 Apparatus.....</b>	<b>2</b>
<b>6 Materials.....</b>	<b>3</b>
<b>7 Samples and tests.....</b>	<b>3</b>
7.1 Sample overview.....	3
7.2 Condom sample groups.....	4
7.3 Sample size.....	4
7.4 Quantity of test substance.....	4
7.4.1 Inflation testing.....	4
7.4.2 Tensile testing.....	4
<b>8 Procedure.....</b>	<b>4</b>
8.1 General.....	4
8.2 (Negative) control testing.....	5
8.3 Inflation testing.....	5
8.4 Tensile testing.....	5
<b>9 Positive control testing.....</b>	<b>6</b>
<b>10 Pass/Fail criteria.....</b>	<b>6</b>
<b>11 Expression of results.....</b>	<b>8</b>
<b>Annex A (normative) Determination of force and elongation at break of test pieces of condoms.....</b>	<b>9</b>
<b>Annex B (informative) Determination of the confidence interval for the ratio of two means.....</b>	<b>12</b>
<b>Bibliography.....</b>	<b>15</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 157, *Non-systemic contraceptives and STI barrier prophylactics*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

This corrected version of ISO 19671:2018 incorporates the following corrections:

- correction of [Formula \(B.4\)](#).

## Introduction

Weakening of natural rubber latex is known to occur after contact with certain lubricants, particularly petroleum-based products. This procedure was developed as a screening method for lubricant manufacturers to determine whether or not a particular personal lubricant or topical medicine has a significant effect on the tensile and airburst properties of condoms. It is also applicable to topical medicines and other chemicals that might come in contact with vulval, vaginal or rectal tissues, and hence with condoms.

The method is designed for use on male condoms that meet the criteria of ISO 4074. While the test method can be effective for male condoms made of other raw materials, there is no evidence upon which to base pass/fail criteria for these materials.

This test method does not determine the safety of either the test substance or the condom.

This test method is to be used only to determine if the tensile or airburst properties of the condom have been significantly affected by the test substance.



# Additional lubricants for male natural rubber latex condoms — Effect on condom strength

## 1 Scope

This document specifies a method of assessing the effect or compatibility of an additional or personal lubricant with lubricated male natural rubber latex condoms. It also applies to topical medicines and any other substances that come into contact with such condoms. It describes the measurement of changes in physical properties of the condoms after exposure to the test substance (i.e. lubricant, topical medicine, etc.) and specifies the pass/fail criteria for such changes.

This document is not applicable to the assessment of the compatibility of lubricants applied to a condom at the time of manufacture. It is not directly applicable to the assessment of the compatibility of a particular condom with lubricants or other substances. It is not directly applicable to tests using female condoms, although similar principles can apply.

The test methods are applicable to condoms made from natural rubber latex and from synthetic materials, but a pass/fail criterion is only stipulated for natural rubber latex.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 4074:2015, *Natural rubber latex male condoms — Requirements and test methods*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4074 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### **personal lubricant**

additional lubricant intended for application by the user at the time of condom use

### 3.2

#### **positive control**

*test substance* (3.3) which is known to cause deterioration in the physical properties of a condom

### 3.3

#### **test substance**

*lubricant* (3.1), *topical medicine* (3.4) or other material which is being tested for compatibility with condoms

### 3.4

#### **topical medicine**

medicine intended to be used vaginally or rectally, and which might come into contact with a condom in use