

**Kaitsekindad kemikaalide ja
mikroorganismide eest. Osa 3:
Vastupidavuse määramine kemikaalide
läbilaskmise suhtes**

Protective gloves against chemicals and micro-organisms - Part 3: Determination of resistance to permeation by chemicals

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 374-3:2003 sisaldab Euroopa standardi EN 374-3:2003 + AC:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 14.10.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 374-3:2003 consists of the English text of the European standard EN 374-3:2003 + AC:2006.</p> <p>This document is endorsed on 14.10.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: Standard hõlmab kaitsekinnaste materjali vastupidavust potentsiaalselt ohtlike mittegaasiliste kemikaalide läbitungimise suhtes nendega pideva kokkupuute tingimustes</p>	<p>Scope:</p>
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ICS 13.340.40

Võtmesõnad:

English version

Protective gloves against chemicals and micro-organisms - Part 3: Determination of resistance to permeation by chemicals

Gants de protection contre les produits chimiques et les
micro-organismes - Partie 3: Détermination de la
résistance à la perméation des produits chimiques

Schutzhandschuhe gegen Chemikalien und
Mikroorganismen - Teil 3: Bestimmung des Widerstandes
gegen Permeation von Chemikalien

This European Standard was approved by CEN on 24 July 2003.

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 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 Management Centre has the same status as the official versions.

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Foreword

This document (EN 374-3:2003) has been prepared by Technical Committee CEN/TC 162, "Protective clothing including hand and arm protection and lifejackets", of which the secretariat is held by DIN.

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 March 2004, and conflicting national standards shall be withdrawn at the latest by March 2004.

This document supersedes EN 374-3:1994.

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.

EN 374 consists of the following Parts under the general title, *Protective gloves against chemicals and micro-organisms*:

- *Part 1: Terminology and performance requirements.*
- *Part 2: Determination of resistance to penetration.*
- *Part 3: Determination of resistance to permeation by chemicals.*

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, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

Introduction

A simple flow-through, two-compartment permeation cell, of standard dimensions, is used to measure quantitatively the permeation of chemicals through protective glove materials. Breakthrough time is measured and used as a measure of protection.

1 Scope

This European Standard specifies the determination of the resistance of protective glove materials to permeation by potentially hazardous non-gaseous chemicals under the condition of continuous contact.

It is emphasised that the test does not represent conditions likely to be found in service, and the use of test data should be restricted to comparing materials chiefly on a relative basis in broad categories of breakthrough times.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate place in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies (including amendments).

EN 374-1, *Protective gloves against chemicals and micro-organisms — Part 1: Terminology and performance requirements*.

ISO 4648, *Rubber, vulcanised or thermoplastic — Determination of dimensions of test pieces and products for test purposes*.

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions in EN 374-1 apply with the following terms and definitions:

3.1 collecting medium

a medium in which the test chemical is freely soluble to saturation mass or volume fraction greater than 0,5 %

3.2 delay time

time between actual arrival of the test chemical on the collecting side of the specimen and the time when the analytical instrumentation responds to it

3.3 permeation rate

the mass of test chemical permeating the glove per unit area per unit time (in $\mu\text{g cm}^{-2} \text{min}^{-1}$)

3.4 closed loop

breakthrough detection system in which the collecting medium is re-circulated through the sampling compartments of the test cell. Closed loop systems are not used with gaseous collection media