



**SLOVENSKI STANDARD  
SIST EN ISO 19403-7:2020**

**01-april-2020**

---

**Barve in laki - Omočljivost - 7. del: Merjenje stičnega kota na nagnjeni površini (kot tečenja) (ISO 19403-7:2017)**

Paints and varnishes - Wettability - Part 7: Measurement of the contact angle on a tilt stage (roll-off angle) (ISO 19403-7:2017)

Beschichtungsstoffe - Benetzbarkeit - Teil 7: Messung des Kontaktwinkels bei Neigtischexperimenten (Abrollwinkel) (ISO 19403-7:2017)

Peintures et vernis - Mouillabilité - Partie 7: Mesurage de l'angle de contact sur un plan incliné (angle d'écroulement) (ISO 19403-7:2017)

[SIST EN ISO 19403-7:2020](https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f3d54af046d/sist-en-iso-19403-7-2020)

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f3d54af046d/sist-en-iso-19403-7-2020>

**Ta slovenski standard je istoveten z: EN ISO 19403-7:2020**

---

**ICS:**

87.040

Barve in laki

Paints and varnishes

**SIST EN ISO 19403-7:2020**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19403-7:2020](#)

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>

EUROPEAN STANDARD

EN ISO 19403-7

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2020

ICS 01.040.87

English Version

## Paints and varnishes - Wettability - Part 7: Measurement of the contact angle on a tilt stage (roll-off angle) (ISO 19403-7:2017)

Peintures et vernis - Mouillabilité - Partie 7: Mesurage de l'angle de contact sur un plan incliné (angle d'écroulement) (ISO 19403-7:2017)

Beschichtungsstoffe - Benetzbarkeit - Teil 7: Messung des Kontaktwinkels bei Neigetischexperimenten (Abrollwinkel) (ISO 19403-7:2017)

This European Standard was approved by CEN on 4 November 2019.

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.

**iTeh STANDARD PREVIEW**

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.

CEN members are the national standards bodies of 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

<b>Contents</b>	<b>Page</b>
<b>European foreword.....</b>	<b>3</b>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19403-7:2020](https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020)  
<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>

## European foreword

The text of ISO 19403-7:2017 has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 19403-7:2020 by Technical Committee CEN/TC 139 "Paints and varnishes" the secretariat of which 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 August 2020, and conflicting national standards shall be withdrawn at the latest by August 2020.

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

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of ISO 19403-7:2017 has been approved by CEN as EN ISO 19403-7:2020 without any modification.

[SIST EN ISO 19403-7:2020](https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020)

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

[SIST EN ISO 19403-7:2020](#)

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>

INTERNATIONAL  
STANDARD

ISO  
19403-7

First edition  
2017-06

---

---

**Paints and varnishes — Wettability —  
Part 7:  
Measurement of the contact angle on a  
tilt stage (roll-off angle)**

*Peintures et vernis — Mouillabilité —*

*Partie 7: Mesurage de l'angle de contact sur un plan incliné (angle  
d'écroulement)*

**iTeh STANDARD PREVIEW  
(standards.iteh.ai)**

SIST EN ISO 19403-7:2020

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>



Reference number  
ISO 19403-7:2017(E)

© ISO 2017

## iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19403-7:2020

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>



### **COPYRIGHT PROTECTED DOCUMENT**

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, 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  
Ch. de Blandonnet 8 • CP 401  
CH-1214 Vernier, Geneva, Switzerland  
Tel. +41 22 749 01 11  
Fax +41 22 749 09 47  
copyright@iso.org  
www.iso.org



# 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 and materials.....</b>	<b>2</b>
<b>6 Sampling.....</b>	<b>4</b>
<b>7 Procedure.....</b>	<b>4</b>
7.1 General for measuring the roll-off angle.....	4
7.1.1 Setting up the contact angle measuring system.....	4
7.1.2 Test conditions.....	5
7.1.3 Conditioning of the test panels.....	5
7.2 Measurement.....	5
7.2.1 General.....	5
7.2.2 Application of the drop.....	5
7.2.3 Determination of the roll-off angle.....	6
<b>8 Precision.....</b>	<b>8</b>
<b>9 Test report.....</b>	<b>8</b>
<b>Annex A (informative) Notes on sampling and treatment of test specimens.....</b>	<b>10</b>
<b>Annex B (informative) Factors influencing the roll-off angle.....</b>	<b>11</b>
<b>Bibliography.....</b>	<b>13</b>

## ISO 19403-7:2017(E)

### 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). (standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

A list of all parts in the ISO 19403 series can be found on the ISO website.

## Introduction

Dynamic contact angles describe the processes on the interface liquid/solid during volume increase (advancing angle) or volume decrease (receding angle) of a drop in horizontal position. As an alternative to the static method (see ISO 19403-2), for the advancing angle always a surface area is wetted, which was previously unwetted. For the receding angle, the contact angle during dewetting is observed. From the difference between advancing angle and receding angle, information on chemical homogeneity and roughness can be concluded. The receding angle is not suitable for the determination of the surface energy.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 19403-7:2020](https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020)

<https://standards.iteh.ai/catalog/standards/sist/45d8dca6-0f8e-4d59-a6c9-f62d54af046d/sist-en-iso-19403-7-2020>