

STN	Náterové látky Zmäčavosť Meranie dynamického uhla postupovania a uhla ustupovania zmenou objemu kvapky (ISO 19403-6: 2024)	STN EN ISO 19403-6 67 2016
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Paints and varnishes - Wettability - Part 6: Measurement of dynamic advancing and receding angle by changing the volume of a drop (ISO 19403-6:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/25

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EN ISO 19403-6

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English Version

**Paints and varnishes - Wettability - Part 6: Measurement
of dynamic advancing and receding angle by changing the
volume of a drop (ISO 19403-6:2024)**

Peintures et vernis - Mouillabilité - Partie 6: Mesurage
des angles d'avancée et de recul dynamiques en
changeant le volume d'une goutte (ISO 19403-6:2024)

Beschichtungsstoffe - Benetzbarkeit - Teil 6: Messung
des dynamischen Fortschritt- und Rückzugswinkels
durch Änderung des Volumens eines Tropfens (ISO
19403-6:2024)

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EN ISO 19403-6:2024 (E)

Contents	Page
European foreword.....	3

European foreword

This document (EN ISO 19403-6:2024) has been prepared by Technical Committee ISO/TC 35 "Paints and varnishes" in collaboration with 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of an identical text or by endorsement, at the latest by April 2025, and conflicting national standards shall be withdrawn at the latest by April 2025.

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Endorsement notice

The text of ISO 19403-6:2024 has been approved by CEN as EN ISO 19403-6:2024 without any modification.



International Standard

ISO 19403-6

Paints and varnishes — Wettability —

Part 6: Measurement of dynamic advancing and receding angle by changing the volume of a drop

Peintures et vernis — Mouillabilité —

*Partie 6: Mesurage des angles d'avancée et de recul dynamiques
en changeant le volume d'une goutte*

**Second edition
2024-10**

ISO 19403-6:2024(en)



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Contents		Page
Foreword.....		iv
Introduction.....		v
1	Scope.....	1
2	Normative references.....	1
3	Terms and definitions.....	1
4	Principle.....	2
5	Apparatus and materials.....	2
6	Sampling.....	3
7	Procedure.....	4
7.1	General for measuring on the horizontal drop.....	4
7.1.1	Setting up the contact angle measuring system.....	4
7.1.2	Test conditions.....	4
7.1.3	Conditioning of the test panels.....	4
7.1.4	Conditioning of the test liquids.....	4
7.2	Measurement.....	4
7.2.1	General.....	4
7.2.2	Measuring method.....	5
7.2.3	Determination of the contact angle.....	5
8	Evaluation.....	5
9	Test report.....	8
Annex A (informative) Notes on sampling and treatment of test specimens.....		10
Bibliography.....		11

ISO 19403-6:2024(en)**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 document 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).

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This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 139, *Paints and varnishes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 19403-6:2017), which has been technically revised.

The main changes are as follows:

- the part title has been changed to: Measurement of dynamic advancing and receding angle by changing the volume of a drop;
- the term [3.2](#) “advancing angle” has been replaced by “dynamic advancing contact angle” and the definition has been reworded;
- the term [3.3](#) “receding angle” has been replaced by “dynamic receding contact angle” and the definition has been reworded;
- normative references have been updated.

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

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ISO 19403-6:2024(en)**Introduction**

Dynamic contact angles describe the processes on the interface liquid or solid during volume increase (dynamic advancing contact angle) or volume decrease (dynamic receding contact angle) of a drop. As an alternative to the static method (see ISO 19403-2), the dynamic advancing or dynamic receding methods measure the contact angle while the three-phase contact line is moving. The contact angle for the dynamic advancing contact angle is measured while wetting a previously unwetted surface. For the dynamic receding contact angle, the contact angle is observed during dewetting. By determining the difference between the dynamic advancing contact angle and the receding contact angle, information on chemical homogeneity and roughness can be concluded. The dynamic receding contact angle is not recommended for the determination of the surface energy.

Paints and varnishes — Wettability —

Part 6:

Measurement of dynamic advancing and receding angle by changing the volume of a drop

1 Scope

This document specifies a method to measure the dynamic contact angle with an optical method. The dynamic advancing and the dynamic receding contact angles are determined.

By using the measurement specified in this document, the wetting and dewetting properties can be characterized. The morphological and chemical homogeneity of interfaces can also be determined.

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 4618, *Paints and varnishes — Vocabulary*

ISO 15528, *Paints, varnishes and raw materials for paints and varnishes — Sampling*

ISO 19403-1:2022, *Paints and varnishes — Wettability — Part 1: Vocabulary and general principles*

ISO 19403-2:2024, *Paints and varnishes — Wettability — Part 2: Determination of the surface free energy of solid surfaces by measuring the contact angle*

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