

# ISO/TS 10689:2023-08 (E)

## Nanotechnologies - Superhydrophobic surfaces and coatings: Characteristics and performance assessment

---

<b>Contents</b>		<b>Page</b>
Foreword .....		iv
Introduction .....		v
<b>1</b>	<b>Scope .....</b>	<b>1</b>
<b>2</b>	<b>Normative references .....</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions .....</b>	<b>1</b>
<b>4</b>	<b>Characteristics and measurement methods .....</b>	<b>5</b>
4.1	General .....	5
4.2	Test piece .....	5
4.3	Pre-treatment of the test piece .....	6
4.4	Contact angle measurement -- Dynamic method .....	6
4.4.1	Advancing angle .....	6
4.4.2	Receding angle .....	6
4.4.3	Contact angle hysteresis .....	6
4.5	Wettability regions .....	6
<b>5</b>	<b>Procedure .....</b>	<b>8</b>
5.1	General .....	8
5.2	Mechanical stress methods .....	8
5.2.1	Water impacting test .....	8
5.2.2	Wear resistance tests .....	10
5.3	Determination of the resistance to solar radiation and weathering .....	12
5.3.1	General .....	12
5.3.2	Specimen preparation and conditioning .....	12
5.3.3	Procedure .....	13
5.3.4	Test report .....	13
5.4	Determination of resistance to liquids .....	13
5.4.1	General .....	13
5.4.2	Preparation .....	14
5.4.3	Procedure .....	14
5.4.4	Test report .....	14
5.5	Thermal cycling test .....	14
5.5.1	General .....	14
5.5.2	Procedure .....	14
5.5.3	Test report .....	15
<b>Annex A (informative) Superhydrophobic surfaces and coatings .....</b>		<b>16</b>
<b>Annex B (informative) Recommended standard test methods .....</b>		<b>18</b>
<b>Bibliography .....</b>		<b>19</b>