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**Barve in laki - Premazni sistemi za lopatice rotorjev vetrnih turbin - 1. del:  
Minimalne zahteve pred in po preskusih izpostavljenosti vremenskim vplivom in  
klimatskih preskusih (ISO/DIS 19392-1:2026)**

Paints and varnishes - Coating systems for wind-turbine rotor blades - Part 1: Minimum requirements prior and after weathering and climatic testing (ISO/DIS 19392-1:2026)

Beschichtungsstoffe - Beschichtungssysteme für Rotorblätter von Windenergieanlagen - Teil 1: Mindestanforderungen vor und nach Bewitterungs- und Klimaprüfungen (ISO/DIS 19392-1:2026)

Peintures et vernis - Systèmes de revêtement pour pales de rotors d'éoliennes - Partie 1: Exigence minimales avant et après les essais de vieillissement et de cycles climatiques (ISO/DIS 19392-1:2026)

**Ta slovenski standard je istoveten z: prEN ISO 19392-1**

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**ICS:**

27.180	Vetrne elektrarne	Wind turbine energy systems
87.040	Barve in laki	Paints and varnishes

**oSIST prEN ISO 19392-1:2026**                      **en,fr,de**

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# DRAFT International Standard

## ISO/DIS 19392-1

### Paints and varnishes — Coating systems for wind-turbine rotor blades —

#### Part 1: Minimum requirements prior and after weathering and climatic testing

ICS: 87.040

ISO/TC 35/SC 9

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### ISO/CEN PARALLEL PROCESSING

**IMPORTANT** — Please use this updated version dated 2026-03-13 and discard any previous version of this DIS as Table 1 footnote was updated.

Reference number  
ISO/DIS 19392-1:2026(en)

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## ISO/DIS 19392-1:2026(en)

### Foreword

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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)).

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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 edition cancels and replaces ISO/TS 19392-1:2018, which has been technically revised.

The main changes are as follows:

- the document type has been changed from ISO/TS to ISO standard;
- peeling strength, fatigue strength (delamination due to blade bending), coating thickness, ice adhesion, speed of sound and density have been added to the initial test methods ([Table 1](#));
- peeling strength, fatigue strength (delamination due to blade bending), ice adhesion, coating thickness, speed of sound and density have been added to the test methods and requirements after exposure to weathering, humidity or climate cycling testing has been added ([Table 3](#));
- the former separate tables on test methods after artificial weathering, test methods after humidity exposure and test methods after cyclic exposure have been combined in one table ([Table 3](#));
- the weathering methods ([Table 4](#)) have been changed;
- [Annex B](#) with examples after natural exposure has been added;
- the normative references have been updated.

A list of all parts in the ISO 19392 series can be found on the ISO website.

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).

## ISO/DIS 19392-1:2026(en)

### Introduction

In the wind energy industry, coatings are applied to the surfaces of rotor blades to protect and to functionalize the glass fibre reinforced polymer composite substrate. Rain drops and hailstones can damage these coatings in such a way that individual layers come off or the whole coating delaminates from the substrate.

This document describes the minimum requirements of the coating system, both prior and following weathering and climate testing. Weathering and climate testing can also serve as pretreatment for rain erosion testing of leading-edge protection coating systems. Rain erosion can be simulated by means of high-speed water jets or water droplets impinging on the specimen surface. ISO/TS 19392-2 describes a method which simulates rain erosion by accelerating one or more coated panels, attached to the end of rotating arms, through a simulated rain field at a constant rotational velocity. ISO/TS 19392-3 describes a method where a water jet or a series of water jets at a defined pressure hits the surface of the specimen. Ice adhesion testing according to ISO/TS 19392-6 can also be performed prior and after weathering and climatic testing.

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