



Update of QUALICOAT Specifications 2023

Update Sheet No. 13

applicable from 01.01.2024

Subject: Evaluation method of Scratch and mar resistance test (Martindale)

Proposals/Requests: Laboratories WG / 23.03.23
Based on the results of the round robin test, the procedure for the evaluation of the Martindale test shall be described more in detail.

QUALICOAT Resolutions: Resolution No. 26/TC 16.05.23
The TC approved the Laboratories WG's proposal to update the evaluation method of the Martindale test results. An update sheet shall be prepared for the November meeting.

Amendment to the Specifications: Amendments made in §2.21 Scratch and mar resistance test (Martindale)

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2.21. Scratch and mar resistance test (Martindale)¹

TEST METHOD - CEN/TS 16611

The test shall be performed on one panel.

[...]

The test shall be carried out at $23 \pm 2^\circ\text{C}$ and $50 \pm 5\%\text{RH}$.

A new abrasion pad (3M Scotch Pad, CF-RL 7448, ultra-fine, grey) shall be used for each test and sample.

~~Five gloss measurements shall be made on the panels according to ISO 2813 at a 60° angle of incidence before and after the Martindale test.~~

According to Figure 1, five gloss measurements (in accordance with ISO 2813 at a 60° angle of incidence) shall be made on the panels before and after the Martindale test. For the five measurements the gloss measurement device has to be placed and moved on the coated surface according figure 1.

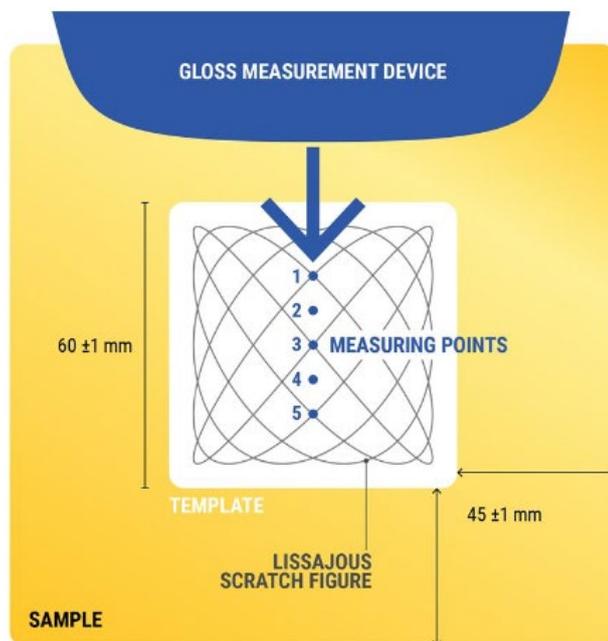


Figure 1: Schematic representation of the measuring points on the sample

REQUIREMENTS:

Gloss retention²

The average gloss retention shall be at least

- 60% for organic coatings with a structured appearance in all classes
- 40% for class 1 and 1.5 smooth organic coatings
- 30% for class 2 and 3 smooth organic coatings

¹ Implementation for data collection with real application by the laboratories from 2020 renewals (Florida exposure 2021–2022/3/4). No consequence on test results in case of failure until 2022 renewals.

² Gloss retention = $\frac{\text{gloss value measured after testing}}{\text{initial gloss value}} \times 100$