

NEWSLETTER

February, 2026



Confidence in Coating Performance Starts with Better Testing

February, 2026 — **Paint and coating performance is not judged by looks alone.** Reliable testing helps confirm safety, durability, surface resistance, and film hardness across production and R&D.

This newsletter **highlights three practical instruments** used for coating QC workflows—especially where repeatability and standard compliance matter.

Automatic Closed Cup Flash Point Tester

QualiAFPT™



A compact solution for measuring flash point using a closed cup method—commonly used for paints, coatings, solvents, and related chemicals where fire risk screening is critical.

- **Wide temperature coverage:** -30°C to 100°C (QualiAFPT™ 1) or RT to 300°C (QualiAFPT™ 2) with controlled average heating rate.
- **Dual test modes:** Rapid balanced mode and average rate heating mode for flexible workflows.
- **Touchscreen operation:** All functions accessible via touchscreen and digital display for fast setup and monitoring.
- **Programmable parameters:** Set heating mode, timing, target temperature, and heating rate to match your method needs.
- **Built-in cooling module:** Shortens turnaround time between tests and improves lab throughput.
- **Automatic barometric pressure correction:** Improves consistency and supports comparable results across conditions.

Best-fit applications:

Paints & coatings, solvents, thinners, chemical labs, petrochemical QC.

Mar Resistance Tester

QualiMar™



Evaluates mar resistance—how easily a coating surface shows visual marking or appearance change under contact/rubbing.

- **Standards Compliance:** Conforms to major international standards, including ISO 12137, ASTM D2197, and ASTM D5178.
- **Accurate Mar Resistance Evaluation:** Features a ring-shaped stylus and double-adjusting balance mechanism to ensure realistic testing and minimize errors caused by uneven sample surfaces.
- **Wide Load and Speed Adjustment:** Supports a load range of 100 g to 5,000 g and adjustable working speeds from 3 mm/s to 10 mm/s for reliable and repeatable testing.
- **Flexible Sample Handling:** Includes a movable working table and liftable balance arm, accommodating panel thicknesses from 0 to 12 mm and enabling multi-point testing on the same specimen.

Best-fit applications:

Automotive finishes, consumer products, industrial coatings, protective coatings.

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König Persoz Pendulum Hardness Tester

QualiPHT™ Series



Measures coating film hardness by evaluating how the film damps pendulum oscillation—widely used for varnishes, paints, and coating systems.

- **Standards Compliance:** Complies with major international standards, including ASTM D4366, ISO 1522, DIN 53157, BS 3900-E5, NBN T22-105, and NF T30-016.
- **Dual-Method Testing Capability:** Supports König (K) and Persoz (P) methods, available in K-only, P-only, or combined (K+P) configurations to meet different testing requirements.
- **Automated and Consistent Operation:** One-touch start initiates a fully automated workflow, including pendulum positioning, panel clamping, and test execution, reducing operator influence and improving repeatability.
- **Stable and Reliable Clamping System:** Equipped with an automatic lifting platform that clamps panels within 3 seconds using a consistent force of ≥ 25 N for reproducible results.
- **Integrated Leveling and Environmental Control:** Includes a high-accuracy inclinometer ($\pm 0.05^\circ$) for real-time leveling adjustment and a full lift-up acrylic door to minimize airflow-related disturbances.

Best-fit applications:

Paint & coating R&D, manufacturing QC, resin and varnish development.

Why These Three Tests Matter in Coating QC

These tests cover three common performance risks in coating production:

- **Flash point** supports safer handling and compliant storage decisions
- **Mar resistance** reflects real-world appearance durability (handling, packaging, abrasion contact)
- **Pendulum hardness** helps confirm cure quality and film robustness

Together, they help labs reduce rework, prevent field complaints, and improve consistency.

QualiTrivia

- **“Mar” isn’t always a scratch.** A surface can “mar” without a deep groove—often it’s a change in gloss or appearance caused by surface deformation.
- **Hardness can be misleading if the cure isn’t stable.** Two coatings can feel similar by touch, yet show different pendulum hardness due to cure chemistry and film structure.
- **Closed cup flash point is commonly preferred for volatile mixtures.** It can better represent confined vapor conditions compared to open cup methods.



Ready to Advance Your Color, Paint & Coating Testing Capabilities?

Qualitest’s Color, Paint & Coating Testing Instruments deliver accurate, repeatable, and standards-compliant results with minimal operator effort. Our comprehensive range is built to help laboratories improve testing efficiency while supporting reliable QC decisions across coating development and production. **Learn more** about how our Color, Paint & Coating Testing solutions can strengthen your R&D and quality control performance: <https://www.worldoftest.com/color-paint-coating-testing>

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