



# TQC Sheen Pendulum Hardness Tester

SP0400



Protecting  
Product Integrity

## TQC Sheen Pendulum Hardness Tester

Our enhanced Pendulum Hardness Tester offers a user-friendly solution for accurately measuring the hardness of inks and coatings. Supporting both König and Persoz testing methods, this versatile and modular system is engineered for reliability and ease of use. With improved performance and user experience, it is an ideal choice for laboratories and quality control environments.

### Why choose the TQC Sheen Pendulum Hardness Tester?

Ergonomic and robust design: Built for durability and ease of use, the TQC Sheen Pendulum Hardness Tester is a dependable solution for laboratory testing. Its intuitive calibration menu simplifies setup and ensures accurate results for both König and Persoz methods.

Reduce operator bias: To enhance repeatability and reduce human error, the tester features automated pendulum positioning via a precision stepper motor. The pendulum release is also fully automated using an electromagnetic system, ensuring consistent and unbiased test execution.

Intuitive LED Feedback System: The integrated LED status indicator provides clear, real-time feedback using a colored light system.

For calibrations, the instrument uses simple traffic-light colored light feedback:

- **Green light:** Test has passed
- **Red light:** Test has failed
- **Amber light:** Test is in progress

This visual feedback helps operators quickly interpret results and maintain efficient workflows.

With the LED light strip, operators can also customize the light intensity and color to suit their requirements. There are pre-set six colors to choose from or you can choose the RGB input, as well as adjust the intensity of the light.

### Technical Specification:

<b>Sample Dimensions</b>	Maximum 105 x 200 mm. Maximum width for Persoz is 70 mm to properly support the two pivot balls. Minimum width for König is 50 mm to properly support the two pivot balls.
<b>Noise Level</b>	The continuous noise level from the instrument does not exceed 70 dB
<b>Test Methods</b>	König and Persoz, single test or batch of three
<b>Standards</b>	ISO 1522, ASTM D4366, Superseded standards DIN 53157, NBN T22-105, BS3900 E5, NFT 30 016
<b>Connectivity</b>	USB-A for optional keyboard or mouse or USB stick for data export
<b>Instrument Control</b>	Via the built in and illuminated 5 buttons and/ or by the optional mouse or keyboard and 95 x 54 xx LCD display
<b>Logging Capability</b>	Up to 25 test logs can be stored in internal memory
<b>Exporting Capability</b>	Test logs can be exported to a USB memory stick
<b>Operating Voltage</b>	100-240 VAC / 50 – 60 Hz from a grounded wall outlet
<b>Power Consumption</b>	20 W via 24 VDC power adapter
<b>Operating Temperature</b>	+5 °C to 40 °C / +41 °F to 104 °F
<b>Weight</b>	26 kg
<b>Dimensions</b>	(W) 430 mm x (H) 980 mm x (D) 650 mm

## What is the Pendulum Hardness Test?

The pendulum hardness test is based on the principle that the amplitude of oscillation of a pendulum touching a surface decreases more rapidly the softer the surface is. The TQC Sheen Pendulum Hardness Tester is designed to work with both König and Persoz pendulums, you can specify whether you would like either one or both when ordering. Both are based upon the same principle, but differ in respect of dimensions, period and amplitude of oscillation.

## Hardness testing with an accurate pendulum tester

From our specialist brand TQC Sheen, this flexible and easy to use pendulum tester is a reliable instrument for hardness testing on a wide range of inks and coatings. It offers many unique features that ease defining hardness by the König and/or Persoz method, as described in ISO 1522.

Both methods work on the principle that the damping time of a pendulum oscillating on a sample indicates the hardness.

## Pendulum Hardness testing accessories

We have a number of accessories available, including:

- **König Pendulum:** A pendulum designed for the König test method (SKU SP0505)
- **Persoz Pendulum:** A pendulum suited for the Persoz test method (SKU SP0510)
- **Glass plates:** Ensures a stable surface for your sample when using the Pendulum Hardness Tester (SKU DV2063)

### Disclaimer

The information contained in this document is liable to modification from time to time in the light of experience and our policy of continuous product development. Check the Industrial Physics website for the latest version.

## Features & Benefits:

- A stepper motor ensures the pendulum is positioned automatically
- The pendulum is automatically released through an electro-magnetic system
- The gas-spring supported transparent draft cover allows easy access to all parts
- Visual and acoustic signal when test is performed, to ensure ease of use
- Intuitive to use with easy navigation key
- Meaningful LED lights to reflect different testing results/stages e.g. Green (Pass), Red (Fail) and Amber (test is in progress). Light intensity and colors are customizable
- Multi-test functions: choose to conduct a single test or triple test
- Compliant to ISO 1522 and ASTM D4355
- An ideal choice for laboratories and quality control environments seeking consistent, standard-compliant results
- The instrument can be kept level on a variety of surfaces, thanks to adjustable and durable support feet
- Integrated storage for glass plate and pendulum, to keep workspace clear
- Menu-driven calibration menu eases both Persoz and König calibration
- Easily extract your test data with USB port on the back of the instrument

## Ordering Information:

### Article Number

SP0400

### Article Description

TQC Sheen Pendulum Hardness Tester

## Contact Details

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