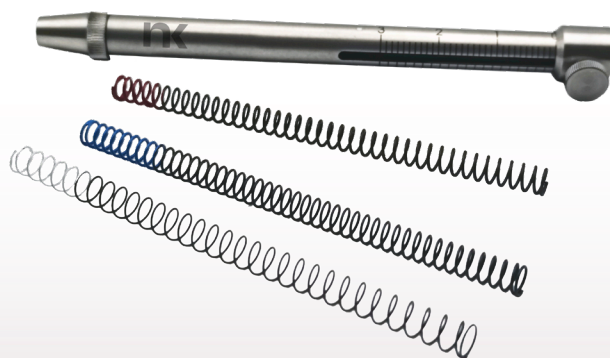


HARDNESS

PH1200 HARDNESS TESTER



Pocket-sized durometer
for testing the hardness
of coatings.

STANDARDS

UNE EN ISO 1518 · EN 438-2

The PH1200 Hardness Probe is a pen-style pocket hardness tester designed to measure the surface hardness of coatings using the half-ball indenter scratch method. Its compact and handy design makes it the go-to tool for field and production line testing, particularly in the automotive sector, where it is widely used to complement laboratory testing.

The unit includes three interchangeable springs with different force ranges and allows the fitting of half-sphere tips with diameters of 0.5 mm, 0.75 mm and 1 mm, meeting the specifications of leading automotive manufacturers (Opel, Bosch, Volkswagen, Volvo) and the ISO 1518 and EN 438-2 standards.

APPLICATION

- **Automotive (OEM and Tier 1):** verification of the hardness of paints and coatings on components in accordance with Opel, Bosch, Volkswagen and Volvo specifications.
- **Industrial and decorative paints:** quality control during production and on receipt of materials in accordance with ISO 1518.
- **Laminates and decorative materials:** testing the scratch resistance of surfaces in accordance with EN 438-2.
- **Field and production line inspection:** thanks to its pocket-sized design, it allows for quick inspections without having to transport parts to the laboratory.
- **Coatings R&D:** comparison of formulations and validation of curing processes under development.

GENERAL FEATURES

- Pen-style design: compact, lightweight and easy to handle for use in the field, workshop and laboratory.
- Three interchangeable springs (white, blue, red) covering a range from 0 to 2,000 gf (0 – 19.61 N).
- Interchangeable 0.5 mm, 0.75 mm and 1 mm hemispherical tips to cover the main OEM and ISO specifications.
- Direct reading of the applied force on the spring scale, without the need for additional equipment.
- A stand is available as an accessory for carrying out reproducible tests under laboratory conditions.
- Supplied in a case with a 1 mm tip, 3 springs and a user manual in Spanish.
- Complies with UNE EN ISO 1518 and EN 438-2.

HARDNESS

PH1200 HARDNESS TEST ROD

TEST PRINCIPLE

The semi-spherical tip of the indenter rests on the surface of the coating and an increasing force is applied via the selected spring until the first visible scratch on the coating is detected. The force at that point — read directly from the spring's scale— determines the scratch hardness of the coating.

The test may be carried out as a pass/fail test (applying the specified force and checking for scratching) or to determine the resistance limit (gradually increasing the force until the first failure occurs).

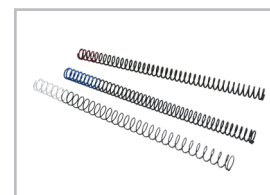
APPLICABLE STANDARD

- **UNE EN ISO 1518:** Paints and varnishes — Determination of scratch resistance. Defines the procedure using a hemispherical indenter and the test conditions.
- **EN 438-2:** High-pressure decorative laminates (HPL) — Characteristics and test methods. Includes a test for resistance to surface scratch.

MODELS

Available springs

Spring	Range	Graduation	Equivalent (N)
White	0–300 gf	10 gf	0–3 N
Blue	0–1,000 gf	50 gf	0–10 N
Red	0–2,000 gf	100 gf	0–20 N



Tip Ø	Standard / Manufacturer	Typical application
0.50 mm	Volvo · Van Laar	Soft coatings; Opel and Volvo OEM specifications
0.75 mm	Bosch	Medium-hardness coatings; Bosch OEM specification
1.00 mm	Volkswagen · ISO 1518	General use; ISO 1518 standard and Volkswagen OEM specification

Durometer rod

Code	Description
NK-PH1200-1	PH1200 durometer probe with 1 mm tip (Volkswagen / ISO 1518) and 3 springs. Includes case and manual
NK-PH1200-075	PH1200 durometer probe with 0.75 mm tip (Bosch / Volvo) and 3 springs
NK-PH1200-050	PH1200 durometer probe with 0.5 mm tip (Volvo / Van Laar) and 3 springs

Optional calibration	Code	Description
✓	CAL072	ENAC-accredited calibration certificate of a durometer test bar

HARDNESS

PH1200 HARDNESS TEST ROD



ACCESSORIES

Holder

Code	Description
NK-PH1200-ST	PH1200 durometer rod holder — enables reproducible testing in laboratory



Spare parts

Code	Description
NK-PH1200-T050	0.50 mm scoring tip for PH1200 rod (Volvo, Van Laar)
NK-PH1200-T075	0.75 mm scoring tip for PH1200 rod (Bosch)
NK-PH1200-T1	1 mm scoring tip for PH1200 rod (ISO 1518 / Volkswagen)
NK-PH1200-SP	Set of 3 replacement springs: 0–3 N / 0–10 N / 0–20 N
NK-PH1200-ST	Holder for PH1200 durometer rod — enables reproducible testing in the laboratory

