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Paper, Film and Foil Roll Hardness Testing

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		Equotip 550 Leeb U	PaperSchmidt	Original Schmidt (L/LR)			
70	Principle	Measurement of the impact body's velocity propelled by spring force against the surface of the test piece	Measurement of the rebour impacting against the s	nd of a spring-loaded mass surface of the test piece			
etho	Native scale	HLU	R ^{1]}	R ^{1]}			
Test method	Impact energy	200 Nmm	735 Nmm	735 Nmm			
12	Measuring time	Less than 1 sec	~ 1 sec	~ 1 sec			
	Angle independent	Manually select: ↓ ↓ →	Auto				
	Endurance	Extremely durable	Highly durable	Durable			
	Large paper rolls	•	•	•			
	Midsize paper rolls	•	•	•			
ons	Small paper rolls	•					
Applications	Thick film rolls		•	•			
Appl	Thin film rolls	•					
	Foil rolls	•					
	Coated rolls	•					
9	Display	Color Touchscreen	Monochrome display	Mechanical indicator			
interfac	Memory (number of values)	> 1'000'000	~ 4'000	< 4'000 per registration paper roll (only LR)			
Display and User interface	Multiple languages	11 languages and timezone supported	Language independent	Language independent			
ay ar	Verification wizard	•					
ispla	Profile view	Sophisticated digital	Simplified digital	Analog			
	Adjustable tolerance limits	•	•				
	Roll numbering	Keyboard or external barcode reader	Predefined list or character selection table	Handwritten (only LR)			
	PC-software (free of charge)	untitled 04/20/2015 2:14 PM Bar graph [measurement order] Measurements Statistics	GB Settings				
Reporting	Direct reporting	1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 12 3 4 5	x = 633 HLU Upper limit off N = 5 Lower limit off	40 30 20 10			
	Custom reports	•					

^{1]} R values of PaperSchmidt and Original Schmidt can not be compared to each other



Equotip® 550 Leeb U

The **Equotip 550 Leeb U** enables the user to quickly and precisely diagnose roll imperfections, hardness inconsistencies and uneven winding, thereby preventing problems for printing and converting operations. Portable and lightweight, the Equotip 550 Leeb U is perfect for roll hardness testing in the warehouse or on the production floor, providing an immediate visual assessment of the hardness profile.

Downward compatibility

The new Equotip 550 Leeb U is compatible with the existing Parotester impact devices. The measurement is identical while the endurance of the cable has been significantly improved.



New 198831-01 4 Measurement 483 HLU 372 HLU AVERAGE: 451 HLU MAXIMUM: 507 HLU proceq

Protected hardware connections

Probe connector, USB host, USB device and Ethernet

Touchscreen features

For simplified and improved usability on high resolution display

Personalized screens

Arrange the view according to your needs

Loading tube

Easy handling with loading and release in one smooth movement

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Support ring

Large crown for a safe and stable impact on curved surfaces



7" color display 800x480 pixels	Weight	2'500 g (5.51 lbs)				
Internal 8 GB flash memory	Battery	Lithium Polymer, 3.6 V, 14.0 Ah				
Metric and Imperial units, multi-language and	Battery lifetime	> 8 h (in standard operating mode)				
time zone supported	Operating	101 5000 (111 10005) (11				
12 V +/-25 % / 1.5 A	temperature	-10 to 50 °C (14 to 122 °F) (Non-charging)				
Display Unit: 250 x 162 x 62 mm (9.84 x 6.4 x 2.44")	IP classification	IP 54				
Impact Device: Ø 45 x 295 mm (Ø 1.77 x 11.61")	Certification	CE				



Display

Memory

Regional settings

Power input

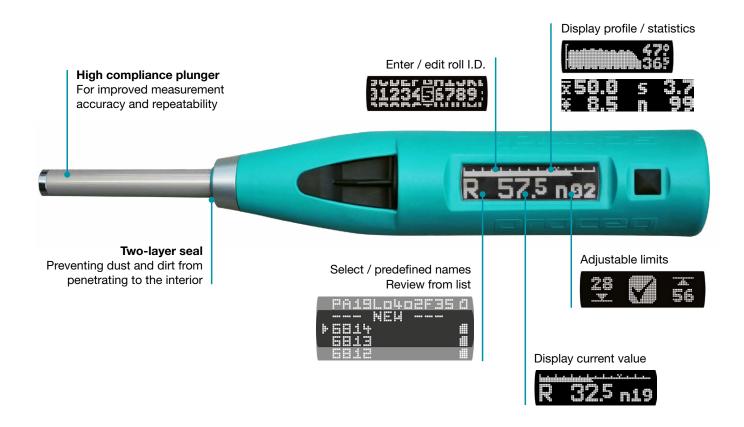
Dimensions

PaperSchmidt

PaperSchmidt is the first rebound hammer designed specifically for roll hardness testing. A new measuring principle and a high compliance plunger provide unachieved roll-profiling accuracy and repeatability.

In addition to this it has an extended lifetime to cope with the heavy demands of the paper, film and foil industry and dedicated tools, such as pre-defined tolerances that make assessing a profile a simple matter.





Display	Monochrome graphic display 17 x 71 pixel	Weight	570 g (1.26 lbs)
Memory (dynamic)	Example 1: 401 series with 10 values per series	Battery	Lithium Polymer, 3.6 V, 160 mAh
Regional settings	Language independent	Battery lifetime	> 5'000 impacts
Power consumption	~13 mA measuring, ~4 mA set-up and review, ~0.02 mA idle	Operating temperature	0 to 50 °C (32 to 122 °F)
Charger connection	USB type B (5 V, 100 mA)	IP classification	IP 54
Dimensions	55 x 55 x 250 mm (2.16 x 2.16 x 9.84"), 340 mm (13") to tip of plunger	Certification	CE

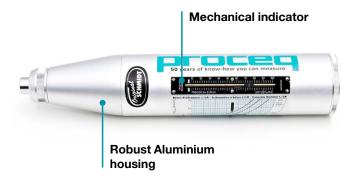


Original Schmidt®

The **Original Schmidt L/LR** has a long tradition in paper and film roll hardness testing e.g. for hardness profiling of paper rolls.

The system is easy to use and gives immediate information about the quality of the paper roll. The Original Schmidt L/LR is mostly used on the production floor. The classic rebound values "R" of the Original Schmidt LR are printed as bars on registered paper.







	Original Schmidt Type L	Original Schmidt Type LR
Impact energy	735 Nmm	735 Nmm
Dimensions	Ø 55 x 275 mm (Ø 2.17 x 10.83")	275 x 137 x 80 mm (10.8 x 5.4 x 3.15")
Weight	0.8 kg (1.76 lbs)	1.1 kg (2.43 lbs)

Verification Tools

To verify the proper function of the devices, Proceq offers for each instrument a dedicated test block or anvil.

These optional accessories allow the user to check on a regular basis the correct function in a fast and easy way directly on-site.



Equotip Test Block U 550 HLU ±12



Testing Anvil 75 R ±2



Low Range Anvil



Ordering Information

Equotip 5	50 Leeb U
356 10 006	Equotip 550 Leeb U (for paper, film and foils) consisting of Equotip Touchscreen incl. Battery, Equotip Leeb Impact Device U, Cleaning Brush, Probe Cable, Power Supply, USB-Cable, DVD with Software, Documentation, Carrying Strap and Carrying Case
356 10 001	Equotip 550 consisting of Equotip Touch- screen incl. Battery, Power Supply, USB-Ca- ble, Surface Roughness Comparator Plate, DVD with Software, Documentation, Carrying Strap and Carrying Case
356 00 083	Equotip Leeb Impact Device U Cable 1.5 m (5 ft)
360 04 600	Equotip Leeb Impact Device U
360 04 503	Equotip Test Block U
356 00 082	Display Antiglare Protection Film for Touchscreen Unit
327 01 033	Battery complete
327 01 053	Quick Charger (external)
360 89 000	Premium calibration certificate

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342 10 000	PaperSchmidt consisting of battery charger with USB-cable, DVD with Paperlink software, carrying strap, documentation, carrying bag
342 10 400	Low Range Anvil
341 10 400	Testing Anvil

Original Schmidt

310 03 002	Test hammer Original Schmidt, Type L complete with standard accessories and carrying case
310 04 000	Test hammer Original Schmidt, Type LR complete with standard accessories and carrying case
310 09 040	Testing Anvil N/NR/ND/L/LR/LD
310 99 072	Registration paper (5 rolls/pack)

Recommended Barcode Readers (for Equotip 550 Leeb U only)

- Honeywell Xenon 1900
- Honeywell Voyager MK 9540
- Motorola Symbol DS 6707
- Any other HID-compatible barcode scanner

Service and Warranty Information

Proceq is committed to providing complete support for each testing instrument by means of our global service and support facilities. Furthermore, each instrument is backed by the standard Proceq 2-year warranty and extended warranty options for electronic portion.

Standard warranty

- Electronic portion of the instrument: 24 months
- Mechanical portion of the instrument: 6 months

Extended warranty

When acquiring a new instrument, max. 3 additional warranty years can be purchased for the electronic portion of the instrument. The additional warranty must be requested at time of purchase or within 90 days of purchase.

Subject to change without notice. All information contained in this documentation is presented in good faith and believed to be correct. Proceq SA makes no warranties and excludes all liability as to the completeness and/or accuracy of the information. For the use and application of any product manufactured and/or sold by Proceq SA explicit reference is made to the particular applicable operating instructions.

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