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SonoDur2 – The better Way of Hardness Testing

Standardized, robust, simple, fast and precise, made in Germany

Fast and precise hardness tester SonoDur2 on GGG 50 cast iron and remote control via PC

UCI-Method (Ultrasonic Contact Impedance):

The indentation produced by the Vickers diamond is displayed instantaneously. The loading is done via motor or by hand against a spring. Hardness is calculated when the defined test load is reached. This corresponds to the indentation surface after unloading, despite the test was under load. UCI-Hardness testing is standardized according to ASTM A 1038, DIN 50159-1/-2 and described in VDI/VDE guidelines 2616 Part 1 and MC1 (DGzfP).

Convincing Arguments for the Use of SonoDur2 in Modern Hardness Testing

The Instrument-Concept:	The Probe Technology:
Comprehensive intuitive operation scheme with color touch screen and large graphic display.	Wide test force range 1 N – 8,6 N for motor-probes, 10 N - 98 N and handheld probes, long rod
All important information at a glance	Best repeatability of measurement, longtime stabile
Virtually unlimited storage space for settings, results, statistics (4 GByte through 32 GByte)	Almost steady low scattering of results across the whole range even at high hardness
Conversions from Hardness to Hardness and Hardness to Tensile Strength can be done for all materials listed in EN ISO 18265:2014 und ASTM E140-12b$^{\varepsilon 1}$ (2013) and DIN50150 (2000, Table 1, Steel).	Free adjustable to nearly all technical materials. Concept of CAL-Number for automatic compensation of Young's modulus
Very extensive set-up and documentation capabilities in clear text	Digital signal evaluation and transfer of measured value to the indicating device via USB-Interface
Automatic importing of set-up parameters from stored measurement series	Direct adaptation of probes to full test systems with SPS connection (SonoDur-R, „Rack")
Data transfer to PC (USB, Bluetooth, WLAN)	Service friendly, modular construction

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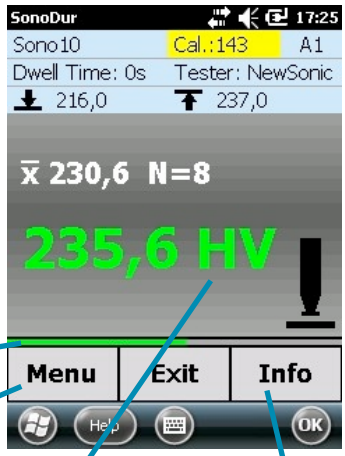
SonoDur2 – small-sized, handy at full control

Probe identification and test condition
with adjustment, material-conversion table, dwell time, name of user, upper and lower tolerance gates

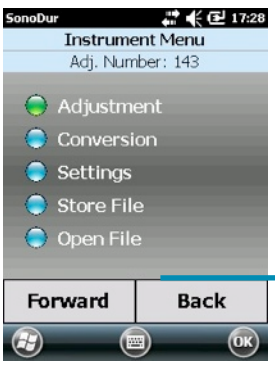
Test results
with actual measurement value (green = o.k., red = out of tolerance), average and number of tests done

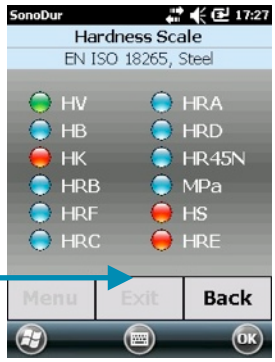
Status
of measurement process. Green: optimal



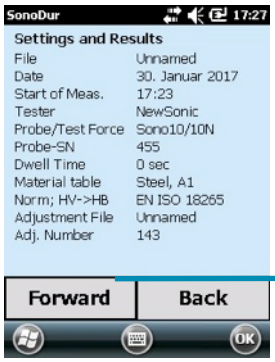
Probe Symbol:
Indication of probe position and penetration time after reaching the test force with count down. Manual initiation of measurement cycle.

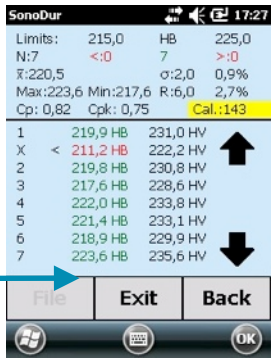
Instrument control:
Menu = device menu
Exit = Change over to "measure-ment" or "end of test" resp.
Info = Indication of settings and results





Easy menu structure, actual conversions into other hardness scales according to norm and depending on probe used





INFO-Key: All settings and results at a glance. False readings can be excluded at any time from calculation of final result („X").

SonoDur2 – optimal protected: IP54 and MIL 810G (vibration-jiggle test)
100 % availability due to replacement battery, testing possible when connected to mains

Made for the daily use – even with handy gloves: Touch-Screen with protecting foil, optional mounting holes and anti-slip rubber pads for slanted surfaces

Figure shows additional equipment

Scope of supply: SonoDur2, probe, case, certificates, USB-charging cable, power unit.

Accessories (optional):
Hardness reference blocks, probe adaptors, precision test stand, evaluation software, spare accumulator, external charger

Services:
- Training, customer care on site
- Repair work for certain producers (UCI)
- Plant hire

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