

MATERIAL TESTER

PCE-RT 2300



- » **Touchscreen and USB wired connectivity to PC with free software**
- » **Measurement of all common roughness values**
- » **Battery and AC mains operation**
- » **Different filters adjustable via touchscreen**
- » **Diamond test head for durability**
- » **Removable motorized sensor with height adjustable legs**
- » **Large measuring range: Rz: 0.02 µm ... 320 µm; Ra, Rq: 0.005 µm ... 32 µm**

The material tester PCE-RT 2300 is used to measure the roughness of surfaces. The PCE-RT 2300 roughness meter has a removable motorized sensor. This property makes it possible to determine the surface roughness with the roughness measuring device even on small or narrow profiles. The measured values are displayed on a large LCD display of the roughness meter. This display is also used by the material tester. The material tester is powered by an internal battery with voltage. This battery can be powered by a conventional USB power adapter.

The detachable motorized sensor is connected by a cable to the main unit of the roughness gauge. The diamond stylus is installed in the motorized sensor. This presses with a maximum force of 4 mN on the surface from which the roughness is to be measured. The material tester measures according to the valid ISO, ANSI and JIS standards for roughness measuring instruments.

Free software download for remote test control and data save to Windows PC.

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The mean roughness depth Rz is the arithmetic mean of the largest individual seam depths of several adjoining individual measuring sections.

Ra is the generally recognized and internationally applied roughness parameter. It is the arithmetic mean of the absolute values of the profile deviations within the reference line.

Specification

Roughness	
Roughness value	Ra, Rq, Rz, Rt, Rp, Rv, Rc, Rmax, R3z, Roman, My
Measuring range	-160 ... +160 µm
Resolution	0,04 µm
Accuracy	±10 %
Roughness	
Roughness value	Ra, Rq
Measuring range	0,005 ... 32 µm
Resolution	0,001 µm
Accuracy	±10 %
Roughness	
Roughness value	Rz, Rt, Rp, R3z, Roman, My
Measuring range	0,02 ... 320 µm
Resolution	0,01 µm
Accuracy	±10 %
Roughness	
Roughness value	Sk, That's fine
Measuring range	0 ... 100 %
Accuracy	±10 %
Roughness	
Roughness value	S, Smell
Measuring range	0,02 ... 1000 µm
Accuracy	±10 %

General technical data	
Repeat accuracy	±7 %
Measuring functions	Ra, Rq, Rsm, Rsk, Rz, Rt, Rp, Rv, Rc
Measuring functions (additional information)	R3z, R3y, Rz(IIS), Ry, Rs, Rku, Rmax, Rmr, RPc, Rk, Rpk, Rvk, Mr1, Mr2
Units	µinch, µm
Display type	LC touch display
Display size	3,5 Inch
Interface	Micro-USB
Standard(s)	ISO4287, ANSI46.1/ASMEB46.1, DIN4768
Sensor	Diamond
Operating time	50 h
Key	- Probe tip radius - 5 µm - Probe tip material - diamond, angled at 90° - Sensor contact force: < 4 mN - Probing speed: 0.135 mm/s at: 0.25 mm 0.5 mm/s at: 0.8 mm 1 mm/s at: 2.5 mm
Dimensions	Motor unit: 115 x 23 x 27 mm
Maximum traverse distance	17,5 mm
Menu language	English, Chinese, English (GB)
Protection class (device)	IP30
Power supply	USB power supply: 5V / 800 mA
Connector type	Device-europlug
(Rechargeable) battery	1 x 3,7 V internal , Lithium-ion battery
Capacity	3000 mAh
Operating conditions	-20 ... 40 °C , 0 ... 90 % RH
Storage conditions	-40 ... 60 °C , 0 ... 90 % RH
Dimensions (L x W x H)	158 x 55 x 52 mm
Weight	500 g