## **MEASURING TECHNOLOGY & TEST SERVICE 2024**

Hardness testing of plastics (Shore)



Manual Shore Test Stand SAUTER TI-HE













# Test stand for hardness testing Shore A and D

#### Features

- High-quality test stand for Shore hardness testing of plastics in industry and the laboratory
- One test stand for two hardness scales:
   The test stand TI-HEA only requires the additional weight TI-HE to be screwed onto so it is also suitable for Shore D hardness tests, see Accessories
- Level adjustment: For the precise levelling of the steel base plate, e.g. for the correction of inhomogeneous test objects
- Robust design enables accurate measuring movements
- 3 Simple handling means that you can achieve repeatable measuring results
- Hardness measuring device is not included with delivery

#### Technical data

- Maximum stroke length: 20 mm
- Maximum test object height: 50 mm
- Base plate Ø 115 mm

#### Accessories

• ■ Option Shore D pour TI-HE: Additional weight for TI-HEA test stand, SAUTER TI-HE



Model		Hardness scales	Test force hardness measurement	Overall dimensions	Net weight approx.	
				W×D×H		
SAUTER			N	mm	kg	
TI-HED	NEW	Shore D	50	200×200×470	10	
TI-HEA	NEW	Shore A	10	200×200×390	6	

New model

### **MEASURING TECHNOLOGY & TEST SERVICE 2024**

**SAUTER Pictograms** 



Conformity assessment

Models with type approval

**DAkkS** calibration

The time required for

DAkkS calibration is shown

Factory calibration (ISO)

The time required for factory

calibration is specified in

Package shipment

The time required for

internal shipping prepara-

tions is shown in days in

the pictogram

the pictogram

the pictogram

Pallet shipment

The time required for

internal shipping prepara-

tions is shown in days in

in days in the pictogram

for construction of verifiable

M

DAkkS

+3 DAYS

ISO

1 DAY

systems

possible



Adjusting program (CAL) For quick setting of the

instrument's accuracy. External adjusting weight required



**Calibration block** 

Standard for adjusting or correcting the measuring



Peak hold function Capturing a peak value within a measuring process



Scan mode

Continuous capture and display of measurements



**Push and Pull** 

The measuring device can capture tension and compression forces



Length measurement

Captures the geometric dimensions of a test object or the movement during a test process



Focus function

Increases the measuring accuracy of a device within a defined measuring range



Internal memory

To save measurements in the device memory



Data interface RS-232

Bidirectional, for connection of printer and PC



**Profibus** 

For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference



**Profinet** 

Enables efficient data exchange between de-centralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible



Data interface USB

To connect the measuring instrument to a printer, PC or other peripheral devices



Bluetooth\* data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



WIFI data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



Data interface infrared

To transfer data from the measuring instrument to a printer, PC or other peripheral devices



**Control outputs** (optocoupler, digital I/O)
To connect relays, signal

lamps, valves, etc.



Analogue interface

To connect a suitable peripheral device for analogue processing of the measurements



Analogue output

For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



Statistics

Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.



**PC Software** 

To transfer the measurement data from the device to a PC



**Printer** 

A printer can be connected to the device to print out the measurement data



**Network interface** 

For connecting the scale/ measuring instrument to an Ethernet network



**KERN Communication** Protocol (KCP)

It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



GLP/ISO record keeping

of measurement data with date, time and serial number. Only with SAUTER printers



Measuring units

Weighing units can be switched to e.g. non-metric. Please refer to website for more details



Measuring with tolerance range (limit-setting function)

Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model



Protection against dust and water splashes IPxx

The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013



**ZERO** 

Resets the display to "0"



**Battery operation** Ready for battery operation. The battery type is specified for each device



Rechargeable battery pack

Rechargeable set



230V/50Hz in standard version for EU. On request GB, AUS or US version available

Plug-in power supply



Integrated power supply unit

Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request



Motorised drive

The mechanical movement is carried out by a electric motor



Motorised drive

The mechanical movement is carried out by a synchronous motor (stepper)



**Fast-Move** 

The total length of travel can be covered by a single lever movement



