

Product Information

ZwickRoell 5109 rebound resilience tester

CTA: 45933 45939



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Applications

The ZwickRoell 5109 rebound resilience tester is available in two basic versions, for the following applications and standards.

- For tests on elastomers and rubber to
 - DIN 53512 (elastomers and natural rubber)
 - ISO 4662 (rubber)
 - ASTM D 7121, Methode B (Schob)
- For tests on foam materials to DIN 13014 (polyether foam hospital mattresses).

Advantages and features

Instrument equipment/details

- Resolution 0.06 degrees.
- Extremely low-maintenance - fully automatic sequence with geared motor as sole actuator.
- Frictionless pendulum encoder.
- Wear-free mechanism - ideal for continuous operation.
- Dustproof keyboard.
- Stand-by mode and LCD display for low power consumption.

Operation

- Menu-guided operation.
- Pendulum height is easily adjustable via an eccentric with the help of a setting program.
- Included in the instrument are two test programs for determining oscillation time and friction.

- The required standard can be selected or the sequence configured.
- Multiple languages can be programmed (English, German plus one freely assignable language).
- Connection to a PC and to ZwickRoell's testXpert testing software is possible. ZwickRoell testing software offers comprehensive data transfer options (from instrument to PC) plus evaluation, processing, documentation and storing of test results.
- Integrated routine enables rapid error analysis.

Specimen temperature-conditioning option

The specimen plus interchangeable clamping fixture can be temperature-conditioned externally in a heated chamber.

The specimen clamping fixture is attached to the instrument base by means of a plug fastener, enabling rapid changes. This reduces temperature losses from the temperature-conditioned specimen during insertion into the tester.

A specimen holder with a temperature control unit for a temperature range of up to 100°C that can be electrically heated is available for tests at high temperatures.

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Technical data

Item No.	324802	324804	
Specimen dimensions			
Diameter of the specimen	Ø 28 ... 50	-	mm
Specimen length	28 ... 50	80	mm
Specimen width	28 ... 50	80	mm
Specimen thickness	0 ... 15	50	mm
Distance from specimen holder to the striker		0 ... 60 (can be adjusted steplessly)	
Pendulum energy	0.5	0.2 (pendulum 1), 0.196 (pendulum 2)	J
Pendulum striker, dome-shaped		- (pendulum 1), Ø 30 (pendulum 2)	
Rounded end	-	R _K = 40, Cyl. Ø = 40 (pendulum 1)	
Pendulum length	L _{red} = 200	L _{red} = 200	mm
Pendulum mass	0.252	-	kg
Apparent strain energy density	426.5	-	kJ/m ³
Angle of fall	90	90	°
Impact velocity	1.98	1.98	m/s
Display	2-line LCD	2-line LCD	
Dimensions			
Height	330	330	mm
Width	450	450	mm
Depth	230	230	mm
Weight, approx.	51	51	kg
Scope of delivery	1 connecting cable, 1 spherical striking edge, 1 specimen grip	1 connecting cable, 1 spherical striking edge, 1 specimen grip	

Optional accessories

Description	ArticleNumber
Specimen holder, electrically heated, replaces standard specimen holder ¹⁾ Temperature range: room temperature to 100°C (± 2°C) with PT 100 temperature sensor, specimen grips for Ø 30 ... 65 mm, height 0 ... 12 mm, heating power 200W, length of cable to temperature control unit approx. 0.5 m ¹⁾	324808
Temperature control unit for specimen holder connection Digital temperature pre-selection (0 ... 399°C), steel housing 150 x 200 x 200 mm, electrical supply 220/230 V, 50/60 Hz, power cord (mains lead) with plug, length 2 m	324810
Transformer for connection of specimen holder/temperature control unit to 110V/60 Hz (mains) power supply	324812
Dust cover (plastic film)	324806

¹⁾ Required: Item No. 324810