Concrete Rebound Hammer NOVOTEST SH

Concrete rebound hammer (sclerometer) – is a device for concrete and other building materials strength testing. The engineer Ernst Schmidt invented the construction of the sclerometer.

The method of the strength testing of concrete with using the rebound hammer is based on the impacting the striker on the concrete surface with predetermined (normed) impacting energy and after measuring the height of the striker rebounding. The height of the striker rebounding will be proportional to the strength of concrete. The strength of concrete is determined by the calibration charts which is supplied with the instrument.

Due to this instrument is very ease in operation, has good reliability of design and high measurement accuracy, so that this method is the most common method of measuring the strength of concrete in the world. The strength testing with the rebound hammer is correspond with ASTM C 805; ASTM D 5873 (for rock); DIN 1048, p. 2; ENV 206; EN 12 504-2; ISO / DIS 8045.

There are several variations of the measuring methods, which are different in impacting energy.

1) The most "powerful" rebound hammer is designed to measure the strength of concrete with a thickness of 70-100mm and more, also for the strength testing of massive rocks with impact energy - 2,207J (Nm). This is the base and the most common model of rebound hammer, about 90% of the rebound hammers in the world have the same impact energy.
2) Average "powerful" rebound hammer has the 735J (735 Nm) impacting energy. The impact energy is reduced threefold in compared with the base model. The main application of this instrument is measuring the strength of bricks and concrete products with a wall thickness less than 100 mm and small sizes of sample, also it used for testing the less strength stones and rocks.
3) The least "powerful" rebound hammer has 196J (196Nm) impact energy. The main purpose is the strength testing the mortar of brick masonry.

Depending on the tasks user always need to select the correct model of rebound hammer. All models, independently of impact energy, are devices for non-destructive testing, so that they are not destroying the object of testing.

To verify the accuracy of rebound hammer, usually uses a special calibrated anvil. Correctly functioning instrument have to display the certain value when it testing the standard anvil.

Advantages of the Concrete Rebound Hammer NOVOTEST SH

Concrete Rebound Hammer NOVOTEST SH has 3 modifications with different impacting energy, so that user can test all kinds of concrete and other building materials.

Specification of the Concrete Rebound Hammer NOVOTEST SH

Names / model	**Rebound Hammer NOVOTEST SH-225**	**Rebound Hammer NOVOTEST SH-75**	**Rebound Hammer NOVOTEST SH-20**
Measuring range of strength, MPa	10 - 60	10 - 60	1 - 25
Impact energy, J	2207	735	196
Minimum thickness of testing object, mm	70 and more	50 - 100	30 and more
Measurement accuracy, %	10		
Hardness value of striker's working surface, HRC, no less	60		
Surface roughness of the testing object, Ra um, no worse	40		
Radius of indenter, mm	25		
Operating temperature range, ° C	-20 … +50		
Weight, kg, no more	1		

Available options of the Concrete Rebound Hammer NOVOTEST SH

- Special calibrated anvil for verifying the accuracy of the device.
- There are several modifications of the measuring methods, which are different in impacting energy:
  - Concrete Rebound Hammer NOVOTEST SH-225
  - Concrete Rebound Hammer NOVOTEST SH-75
  - Concrete Rebound Hammer NOVOTEST SH-20

Standard set of the Concrete Rebound Hammer NOVOTEST SH

- Rebound hammer (impacting energy as required)
- Grinder for surface preparation
- Passport / manual
- Case