PAPWORTHS CONSTRUCTION TESTING EQUIPMENT

**Perth**
West Perth
0408 034 668

**Melbourne**
Niddrie
0428 315 502

**Brisbane**
Toowong
0419 477 715

**Sydney**
Belrose
0418 381 709

www.pcte.com.au

# Original SCHMIDT Hammer


## Introduction

The SCHMIDT Hammer is the most frequently used method worldwide for non-destructive testing of concrete and structural components.
After the spring in the hammer is loaded, the test hammer will hit the concrete at a defined energy. The height of the rebounded mass is recorded and measured by test equipment. Its rebound is dependent on the hardness of the concrete. By reference to the conversion tables, the rebound value can be used to determine the corresponding compressive strength.
When performing the test of Schmidt Hammer, it is critical that the hammer need to be held at right angles to the surface which needs to be smooth and flat. The orientation of the Hammer will in turn affect the rebound reading.
No other manufacturer offers such a wide range of different types. Each hammer is designed for specific test applications.

## Original Schmidt Type N

This is the workhorse of the range. With a measuring range 10 to 70 MPa compressive strength and an impact energy of 2.2J's, this hammer is sufficient for most engineering applications.


Rebound values are read from a dial and converted to compressive strength using the graphic above it.

## Type L

Also with a measuring range 10 to 70MPa compressive strength, this hammer has an impact-energy, which is three times smaller than the Type N.
These types are used for testing thin walled (< 100 mm) or small components but also cast stone components sensitive to impact.

## Type NR and LR

With this model Rebound values are recorded as a bar chart on a paper strip. One roll of paper strip offers room for 4000 test impacts.

## Digi-Schmidt Type ND and LD

The world's first digital rebound hammer with data storage, impact angle correction and direct display of compressive strength. The Digi-Schmidt allows correction for form factor and carbonation.


It comes with a number of pre-programmed correlation curves, allowing the user to select the most suitable for the mixture under test. All data and parameter may be transferred to a PC for further evaluation with the ProVista software.

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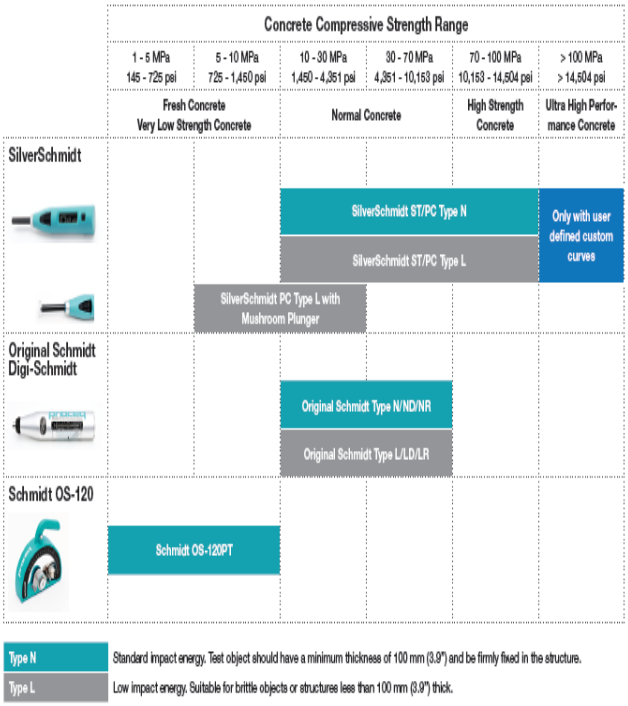
## Pendulum Schmidt Hammer Type PT (Concrete test hammer)

Equipped with a larger plunger surface, it is especially designed to test on softer material such as light weight concrete, gypsum boards and on fresh concrete. It is often used to determine the right time to remove formwork.


## Type PM (Mortar test hammer)

Designed to test the mortar joints in brickwork. It has a specially developed plunger whose shape ensures the impacts are applied to the surface of the joint, the contact point has a diameter of 8.0 mm. Based on the rebound values the mortar quality can be classified.

## Rebound Hammer Standards

The Original Schmidt is fully compliant with all major standards.

## Dimensions

| Hammer Type | Dimensions | Weight |
|---|---|---|
| N | 325 x 125 x 140 mm | 1.6 |
| L | | 1.4 |
| NR | 325 x 295 x 105 mm | 2.9 |
| LR | | 2.7 |

## Concrete Compressive Strength Range

Each rebound hammer is built for a different purpose in order to meet the specific needs of the customer. The following table gives an overview of the specifications and applications for each instrument.

## Test Anvils

Each test hammer should be checked after 1000 test impacts. A testing anvil is used to check whether the rebound test mechanism is working correctly. Cleaning or inspection will be required in case of contamination by very fine cement or due to wear.

## About PCTE

PCTE have over 30years experience in the measurement and testing of concrete. With experience in research, consulting and construction they are able to assist you in reviewing the issues and developing solutions. PCTE can provide more than just the equipment. They can provide leading technical support for your business.

## Other Equipment

The full Proceq range of equipment is available for insitu non-destructive concrete measurement, including Schmidt Hammers, Covermeters, Half Potentials, Resistivity, Ultrasonics and Permeability. The Olson Instrument range also includes the CTG, Freedom Data PC and DAS as well as the resonance tester. We also supply IntelliRock maturity, temp and humidity logging systems, corrosion rate monitoring equipment & GPR.