# NDT / Protection and repair of concrete structures

**Durability** evaluation Metal location in concrete / Carbonation test / Chloride content

#### **METAL LOCATION IN CONCRETE**

#### **■** 58-E0058

Deep scanning metal locator

# General description and specifications

Finds rebar and metallic pipes, conduit, metal studs, junction boxes and metal framing up to 150 mm deep-before drilling or remodelling. It scans through most nonmetallic construction material, including solid concrete.

It is an essential tool for concrete contractors, remodelers, plumbers and electricians.

# Large LCD display

Battery: one 9 V alkaline

Battery life: 1 year with normal use, with low battery indication

#### Accuracy:

- Rebar position: 0 mm (shallower) / ± 25.4 mm (deeper)
- Rebar depth: 0 mm (shallower) / ± 25.4 mm (deeper)

Water resistance: splash and water resistance, but not waterproof

Size: 215x95x55 mm (lxwxh)

Meight approx.: 320 g with battery

- Scans through solid concrete
- Pinpoints the location and depth of
- Differentiates between steel rebar and copper pipe
- Eliminates guesswork, needless holes, broken drill and saw blades



58-E0058

#### **CARBONATION TEST**

pr EN 14630

#### ■ 58-E0063

Carbonation test set

## General description and specifications

This test set allows the measurement of the depth of carbonation through the surface of concrete. When compared with the concrete cover to reinforcement, the risk of carbonation induced corrosion can be assessed.

The set consists of two 500 ml washing bottles, containing distilled water and phenolphthalein solution, and a depth gauge. The freshly broken or cored surface is sprayed with phenolphthalein solution to detect the loss of alkalinity associated with carbonation.



58-E0063

#### Important note

The Microcore Apparatus (code 58-C0299) described and shown in the group of "Concrete strength evaluation" can be conveniently used to take small cores suitable to perform the carbonation test.

- Fast, economical and accurate results of chloride content
- Wide range (from 0.002% to 2% chloride by weight)
- Digital direct reading of test results (lb/cu. yd. and % of chloride by weight)

#### CHLORIDE CONTENT

## 

Correlates to ASTM C114 (meter conforms to AASHTO T260)

#### **■ 58-E0064**

Chloride field test system

## General description and specifications

For the determination of the chloride ion concentration in concrete to enable the identification of the risk of chloride induced reinforcement corrosion.

The method involves an acid extraction of a representative drilled sample of concrete, which is then tested using an ion selective electrode and the potential compared with a calibration drawn up from a series of five known standard solutions supplied with the test kit.

The test system includes:

- Chloride combination electrode with externally mounted temperature sensor, cable and connectors
- Battery powered, high impedance, electronic meter, with temperature compensation circuits and microprocessor for direct conversion to percentage of chloride
- Replacement pack of 12 jars each with 20 ml of extraction liquid and 5 jars of coloured calibration liquid
- Bottle of electrode wetting agent
- Scales for weighing 3 g samples
- Instruction book and carrying case.
- Weight approx.: 5 kg

# Spare parts

**▼ 58-E0064/1** Pack of 12 jars of 20 ml extraction liquid and 5 jars of coloured calibration liquid



58-E0064 complete set