

## CHEMICAL ANALYSIS KIT



Determination of the depth of carbonation and of the penetration profile of chloride ions in concrete.

The use of chemical reagents such as phenolphthalein ( $C_{20}H_{14}O_4$ ), sodium hydroxide (NaOH) and silver nitrate ( $AgNO_3$ ), is useful for determining the characteristics when investigating the state of conservation of the reinforcements by sampling and analyzing of concrete samples.

The determinations can be performed both to investigate the causes of a corrosion phenomenon that has already occurred and to derive elements of judgment on the behavior of the reinforcement over time.

This method can be applied to samples produced in the laboratory or taken in situ, while it cannot be applied to surface treated concrete.

### **NORMATIVE REQUIREMENTS:**

UNI 9944: 1992 - Corrosion and protection of concrete reinforcement

UNI EN 14630: 2007 - Products and systems for the protection and repair of concrete structures - Test methods - Determination of the depth of carbonation of a hardened concrete with appropriate methods referred to in UNI 11747: 2019 Tests on hardened concrete.

The kit consists of 100 ml bottles with nebulizer containing sodium hydroxide, silver nitrate and 1% hydro-alcoholic solution of phenolphthalein.

### **100 ML BOTTLES WITH NEBULIZER OF:**

- 1% hydro-alcoholic solution of phenolphthalein ( $C_{20}H_{14}O_4$ )
- Sodium hydroxide (NaOH)
- Silver nitrate ( $AgNO_3$ )