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T E C H N I C A L D A T A S H E E T

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C-PROBE: EMBEDDABLE CHLORIDE DEPTH ELECTRODE: CP80

Electrode Type

Silver/Silver Chloride based Chloride-Ion Selective Electrode

Description

The CP80 is manufactured as a robust reference electrode (half-cell) ideal for embedding in new reinforced concrete structures.

Chloride detection cells are excellent ion selective electrodes for use in civil and building structures for the detection of chloride ion ingress to reinforced concrete structures. Their electrochemical nature results in sensitivity to chloride and pH, which allows their use as sensors for monitoring local environmental changes.

Mapping changes in the hydroxyl/chloride ratio means early detection and quantification of factors leading to reinforcing steel corrosion, and resulting concrete degradation, prior to serious damage.

These electrodes are ideal for use in conjunction with the widely accepted silver/silver chloride corrosion potential sensors for a full picture of environmental changes before the onset of serious damage.

Compatibility with all known data-logging equipment and remote sensing is guaranteed. If extraordinarily long cable lengths are required then the user is advised to specify the type of screening for cables and contemplate the use of buffer amplification of signals.

For information and monitoring system design contact *C-Probe Systems Limited* for details.

Dimensions

The CP80 cell is cylindrical of 35mm diameter and variable lengths depending on the number of detection heads required. Any low diameter multi-core cable can be fitted at manufacture (guidance can be given on request). For example, a 4-core cable is normally fitted to a 4-chamber unit with the following colour coding: Red@20mm; Green@40mm;Blue@60mm and Yellow@80mm.

Life expectancy is certified as at least 10 years provided the product is handled correctly prior to and during installation.



Calibration

Each element of the electrode is calibrated against a Standard Calomel Electrode (SCE) and is issued with a calibration certificate.

Chloride Depth Embeddable Concrete Electrode: CP80

Special Note: The number of sensing heads for the CP80 can vary to specification. Moreover, the CP10P will provide cross-referencing corrosion potential measurements to assess the condition of the steel reinforcement. You may also wish to use one of our corrosion rate probes as the sensing electrode and cross compare corrosion data with the chloride ingress information

