

CONCRETE CORROSION MAPPING



Model CCMS
Item #15620

SAMPLE APPLICATIONS

- Bridge Decks
- Highway Slabs
- Parking Garages
- Concrete Piers & Docks
- Substructures
- Pre-cast Structures
- Foundations
- Reinforced Concrete Pipe
- Warehouse Floors
- Tunnels



Case Included

FEATURES & BENEFITS

- Corrosion Mapping System can be used to satisfy ASTM C-876 standard test method which has been adopted by the Federal Highway Administration
- Corrosion Mapping System contains all the items needed to perform a corrosion survey on virtually every reinforced concrete structure
- Includes our rugged industry proven LC-4.5 digital meter, adapter plate, electrode extensions, portable hand held test wheel (wire included)
- Two portable reference electrodes; sponge bottle reference electrode for testing on slab surfaces and RE-5/U for testing on overhead/vertical surfaces
- Light weight, easy to use designed for field use under nearly any weather
- Large scale digital meter read out at waist height minimizes operator fatigue and errors.
- Packaged with instructions in a durable hard plastic case for ease of storage and transport to survey sites

NOTE: ASTM Revised standard is C-876-09

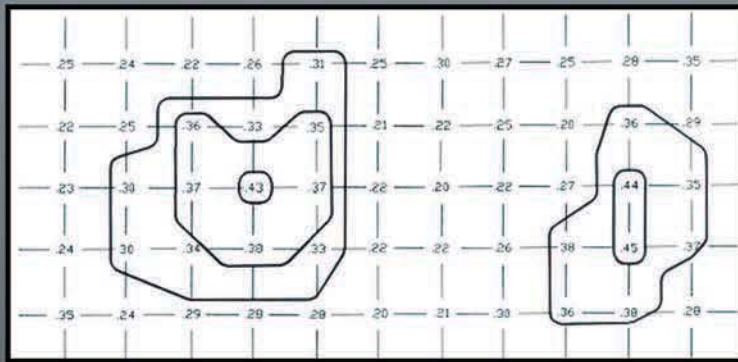


CONCRETE CORROSION MAPPING

The nature of concrete corrosion is an exchange of energy within different sections of the reinforcing steel. At the anode, corrosion occurs and iron ions are released into the electrolyte. The relative energy levels can be determined in relation to a reference electrode with a stable electrochemical potential. A high impedance voltmeter is connected between the reinforcing steel and a reference electrode placed on the surface of the concrete. The resulting potential reading on the voltmeter is an indication of the energy levels (corrosion activity) of the steel in the vicinity of the reference cell.

Half cell potential measurements serve as an important means of determining the probability of corrosion activity on the structure's reinforcing steel. These measurements, which are related to the electrochemical nature of corrosion, allow an accurate survey to be performed in a short period of time.

Data from these surveys can be plotted to provide an easy to interpret graphic picture of the structure. From this plot, as typically shown below, probable corrosion areas and the total area of the structure subject to corrosion can be determined.



Typical concrete slab section with steel reinforcement (rebars). Potential measurements obtained on 4' centers of 24' x 48' panel.

Concrete Mapping System Items Included in Kit

Item #	Description
5203	LC-4.5 meter w/carrying case and manual with test leads
5701	Electrode extension meter adapter plate
16200	Intermediate electrode extension (15") - 2 included
15625	Sponge bottle electrode
30500	GEM hand reel (aluminum) with: 30807 No. 16 AWG test lead wire (red wire insulation) 250' included on reel
16906	Copper-sulphate crystals, 12 oz bottle
17105	Electrode anti-freeze solution, 8 oz bottle.
14905	RE-2.5U electrode (overhead testing)
15628	Concentrate, 4 oz surfactant solution
MAN060	C.C.M.S. Reference guide
CAS015	Orange carrying case C.C.M.S.

LC-4.5 METER
ITEM #5203



ADAPTER
PLATE
ITEM #5701



INTERMEDIATE
ELECTRODE
EXTENSIONS
(15 INCH)
ITEM #16200



SURFACTANT
RESERVOIR
W/ELECTRODE
ITEM #15625

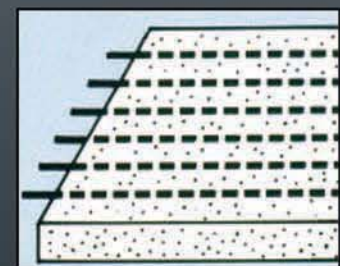
SURFACTANT BOTTLE
CAP WITH SPECIAL
VERSION RE-7 Cu-CuSO_4
REFERENCE ELECTRODE



SURFACTANT
RESERVOIR

INTERFACE
CONNECTOR

SOLUTION
DISPENSING
SPONGE



Concrete slab with steel rods

