

Reference electrode for potential measurements in reinforced concrete

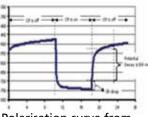
ERE 20 is a true reference electrode with a long service life. It may be embedded in the cover layer of concrete structures to monitor correct operation of cathodic protection and monitor the corrosion condition in reinforced steel. The reference electrode may be installed in both new and/or existing structures.

Based on well-known battery technology the ERE 20 is a noble half-cell, using manganese dioxide in a very alkaline (pH13.5) electrolyte, placed in a stainless steel case and with an ion membrane of cement mortar ensuring good affinity to the concrete.

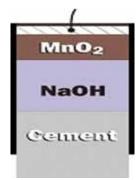
ERE 20 may be easily connected to a data logger to transmit measuring data and remote surveillance via modem is also a possibility. Furthermore, measurements may be performed by use of a handheld volt metre with high input impedance (>100 M Ω).

Advantages:

- Easy to install in new or old structures
- May be exposed to chlorides and carbonatisation
- Very stabile potential with linear function to pH in the alkaline area
- Suitable for monitoring cathodic protection (EN 12696).



Polarisation curve from the CP-system



Cut through the ERE 20 reference electrode



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