

Extrin offers many concrete related services from durability design and specification through to project management of works as well as assessments and testing of deteriorated concrete and scope of works for remediation.

Extrin offer the following services to enhance the durability of your concrete assets:

## **Durability Assessments and Mix Design Review**



**Durability assessments** consider the ‘fitness for purpose’ of concrete mixes and designs, and ask the question:

“Is the design proposed suitable for achieving the concrete service life requirement?”

The concrete mix, including constituents such as sand, aggregates, cement, silica fume and other pozzolans, admixtures, and of course water, can be greatly varied to improve properties such as strength, permeability and workability.

A **mix design review** can establish weaknesses in a design or provide options for improving any or a number of these properties.

## **Condition Assessment**

The improvements in admixture technology over recent years has been remarkable. Even low dosages of some admixtures can result in improved concrete strength and reductions in permeability, resulting in extended concrete service life of major assets.

Marine environments as well as mine site environments with high salinity water can benefit from improved concrete performance.

Extrin are specialised in performing on site concrete condition assessments, using a variation of destructive and non-destructive testing procedures to evaluate the existing state of the concrete asset.



## **Protective Coatings**



**Protective coatings** are another successful method of reducing negative effects on concrete. Recommendations of suitable coatings for the long term protection of concrete against these chemicals and other causes of damage, such as impact and abrasion, can be undertaken by Extrin. Specifications for the correct preparation and application of recommended coating products is also part of our expertise.

Extrin are experienced in the **Project Management** of concrete refurbishment works including: tender assessment, project management (monitoring productivity, performance and safety among other aspects) and related QA/QC services.



### **Asset/Infrastructure Assessment**

- Corrosion Management Audit
- Asset Condition
- Failure Investigation
- Criticality Review

### **QA/QC**

- Coating Inspections
- Project Management
- Repair Integrity Analysis
- Shutdown Planning and Maintenance Management

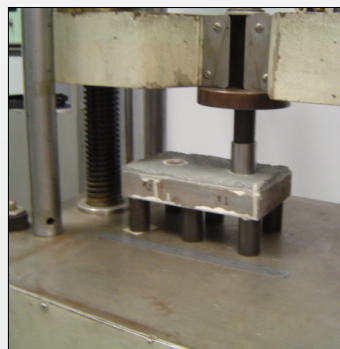


### **Microbial Investigation**

- Site Inspections
- Analytical Testing Mechanism Determination
- Remediation

### **Cathodic Protection**

- Complete System Design
- System inspections and testing
- Material Procurement
- Coordination of installation



### **Analytical Services**

- Water Analysis
- Corrosion Product Testing
- Metallurgical Testing
- Product Trials
- Concrete Testing

### **Corrosion Training Services**

- Corrosion Awareness
- Corrosion Prevention
- Corrosion Detection
- Other Client-Specific Training Courses



### **Failure Analysis**

- Failure Catalyst Analysis
- Review and Recommendations
- Asset inspection and testing

### **Design and Durability**

- Durability Report
- Materials selection
- Concrete mix design
- Corrosion rate prediction
- Maintenance specifications



Visit our website for more information on our services and projects undertaken



**"Consultants in Corrosion Management"**

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