

Concrete Design and Preparation

The following items need to be considered when preparing concrete design:

- Strength requirements
- Durability requirements
- Aesthetic requirements
- Maximum aggregate diameter
- Method of placement
- Placing rate
- Concrete consistence
- General boundary conditions
- Delivery method and time
- Curing/waiting time
- Definition of test requirements
- Mix design and specification
- Preliminary testing
- Mix design adjustment if necessary

Placement of Concrete

Concrete is placed within a limited and defined period. The following factors contribute to the success of this operation, which is critical to concrete quality:

- Checking of Delivery Docket
- Using the correct equipment
- Avoid over handling of concrete
- Continuous placing and compacting
- Re-compaction on large pours
- Take the appropriate measures during interruptions
- Carry out the necessary finishing

Curing of Concrete

Appropriate curing is essential to achieve consistent quality. The following measures are required to achieve this:

- Protect from adverse climate conditions – direct sun, wind, rain, frost
- Prevent vibration after finishing
- Use a curing agent
- Cover with sheets or frost blankets
- Keep damp
- Maintain the curing time relevant to the temperature