✅ ChecklistGuro

Concrete Mix Design Verification Checklist

Mix Design Review & Documentation

Verifies the initial mix design documentation, calculations, and assumptions.

Mix Design Revision Number

Enter a number...

Date of Mix Design

Enter date...

Description of Mix Design Intent (e.g., intended use, performance criteria)

Write something...

Attach Mix Design Calculations

⬆ Upload File

Design Code Compliance (e.g., ACI, Eurocode)

- [ ] ACI 318
- [ ] Eurocode 2
- [ ] Other (Specify)

Design Engineer Name

Write something...

Assumptions made in the mix design (e.g., moisture content of aggregates)

Write something...

Mix Design Approval Status

- [ ] Approved
- [ ] Rejected
- [ ] Pending Review

Material Properties Verification

Confirms the properties of all materials (cement, aggregates, admixtures) used in the mix design.

Cement Type (ASTM)

Enter a number...

Cement Fineness (cm²)

Enter a number...

Coarse Aggregate Size (mm)

Enter a number...

Coarse Aggregate SSD (Specific Gravity & Absorption)

Enter a number...

Fine Aggregate SSD (Specific Gravity & Absorption)

Enter a number...

Maximum Aggregate Size (mm)

Enter a number...

Source and Lot Number for Cement

Write something...

Aggregate Gradation Test Results

⤒ Upload File

Admixture Type

- ☐ Water Reducer
- ☐ Air Entrainer
- ☐ Retarder
- ☐ Accelerator
- ☐ Superplasticizer
- ☐ None

Trial Batching & Testing

Details the processes and results from trial batches performed to validate the mix design.

Trial Batch Size (Cubic Meters/Yards)

Enter a number...

Detailed Mixing Procedure Followed

Write something...

Slump (mm/inches)

Enter a number...

Air Content (%)

Enter a number...

Compressive Strength - 7 Days (MPa/psi)

Enter a number...

Compressive Strength - 28 Days (MPa/psi)

Enter a number...

Observations during Batching & Testing (Workability, Segregation, Bleeding)

Write something...

Batch Result - Pass/Fail

☐ Pass
☐ Fail

Supporting Test Reports (e.g., Lab Reports)

⬆ Upload File

Slump & Workability Assessment

Focuses on verifying the slump and overall workability of the concrete mix.

Slump (mm/inch)

Enter a number...

Slump (mm/inch) - Second Test

Enter a number...

Workability Assessment (Visual)

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Observations Regarding Workability

Write something...

Consistency (Visual)

- ☐ Too Wet
- ☐ Correct
- ☐ Too Dry

Temperature of Concrete (ºC/ºF)

Enter a number...

Any Additional Comments on Workability

Write something...

Strength Testing & Durability Requirements

Covers the compressive strength and other durability tests performed and their results.

Target Compressive Strength (psi/MPa)

Enter a number...

Age of Strength Test (days)

Enter a number...

Average Compressive Strength (psi/MPa) - Test 1

Enter a number...

Average Compressive Strength (psi/MPa)

Enter a number...

Standard Deviation of Strength Tests

Enter a number...

Strength Test Result:?

☐ Pass

☐ Fail

☐ Needs Further Investigation

Comments/Remarks on Strength Testing (if any)

Write something...

Upload Strength Test Certificates

⬆ Upload File

Durability Test Required?

☐ Yes
☐ No

Air Content Verification

Ensures the air content meets specified requirements, if applicable.

Specified Air Content (%)

Enter a number...

Measured Air Content (%)

Enter a number...

Air Content Variance (±%)

Enter a number...

Air Entrainment Method

☐ Vane Test

☐ Pressure Meter

☐ Other (Specify)

Notes/Observations on Air Entrainment

Write something...

Acceptance Criteria Met?

☐ Yes

☐ No

Corrective Actions (If Not Met)

Write something...

Air Content Test Report

⬆ Upload File

Admixture Dosage & Compatibility

Confirms the accuracy of admixture dosages and checks for any compatibility issues.

Cement Content (kg/m³)

Enter a number...

Water Content (kg/m³)

Enter a number...

Admixture A Dosage (ml/kg of cement)

Enter a number...

Admixture B Dosage (ml/kg of cement)

Enter a number...

Admixture Type A

- ☐ Water Reducer
- ☐ Air Entrainer
- ☐ Retarder
- ☐ Superplasticizer
- ☐ Other

Admixture Type B

- ☐ Water Reducer
- ☐ Air Entrainer
- ☐ Retarder
- ☐ Superplasticizer
- ☐ Other

Compatibility Test Procedure (if performed)

Write something...

Compatibility Test Report (if applicable)

⬆ Upload File

Observations during admixture addition (e.g., slurring, clumping)

Write something...

Admixture Supplier

☐ Supplier A
☐ Supplier B
☐ Supplier C
☐ Other

Record Keeping & Sign-off

Verifies that all test results and approvals are properly documented and signed off.

Mix Design Verification Date

Enter date...

Project Name

Write something...

Mix Design Identifier

Write something...

Summary of Verification Findings

Write something...

Trial Batch Number

Enter a number...

Upload Test Reports

⬆ Upload File

Verification Status

☐ Approved

☐ Rejected

☐ Requires Revision

Mix Design Engineer Signature

Date of Approval

Enter date...