

SECTION 7 CONCRETE

1 GENERAL

1.1 SCOPE

Outline description

This section applies to all concrete forming part of the works.

1.2 STANDARDS

Site copy

Keep on the site a copy of AS 3600, AS 3610 and AS 1012, Parts 1, 3 and 8.

1.3 CERTIFICATION

Requirement

Upon completion of concrete works provide to the Superintendent certification by a practising professional structural engineer registered under the Professional Engineers Act that:

- (i) all tests to concrete works and concrete materials required under the Contract have been completed; and
- (ii) completed concrete works conform in all respects to the Drawings and Specifications.

Refer also to WORKS CERTIFIED BY CONTRACTOR'S CERTIFYING CONSULTANTS – PRELIMINARIES.

1.4 INSPECTION

Notice

Give sufficient notice so that inspection may be made of the following:

- Completed formwork.
- Reinforcement fixed in place.
- Cores and embedments fixed in place.
- Placing of Concrete.

Minimum notice required

24 hours in advance of time when work will be ready for inspection and allow 1 working day for the inspection before any possible approval.

2 TESTING AND ASSESSMENT

2.1 TESTING

Generally

All costs associated with specified calibration sampling and testing shall be deemed to be included in the Contract Sum.

Strength grade assessment

Use Project Assessment of Strength Grade in accordance with AS 3600.

Testing certification

Use NATA registered bodies for testing and certificates unless approved otherwise. In this section the word "certificate" means certificates by NATA registered body, unless approved otherwise.

Authority and personnel

The organization or organizations responsible for testing and assessment of concrete and concrete materials, and the personnel engaged in site sampling and in handling test specimens obtained on the site, shall be subject to the approval of the Superintendent.

Records

Production assessment records: To AS 3600 Section 20.

Other test records: For each required test maintain the records and reports of test results required by AS 1012, or similar information tests not covered by AS 1012. Make the records available on request.

Certificates

Forward original Test Certificates, or true copies, to Superintendent without delay.

2.2 PERFORMANCE TESTS

Requirement

Test for properties specified or else shown on the Drawings.

Compressive strength assessment

Frequency of sampling: In addition to the requirements of AS 3600 take samples as follows:

- Concrete in columns, bearing walls and footings: (Other than strip footings): One sample per batch.

2.3 TEST SPECIMENS

Standard

Prepare test specimens to the relevant Part of AS 1012.

Moulds

Use only rigid steel moulds.

Test specimens

To AS 1012 Part 8.

Curing

To AS 1012 Part 8, Clause 1.9 and 2.9 as applicable, under conditions appropriate to relevant Standard Temperature Zone; Initial curing to AS 1012 Part 8, Clause 1.9.2 and 2.9 as applicable.

Demoulding

To AS 1012 Part 8, Clause 1.10 and 2.9 as applicable.

Transport to laboratory

To AS 1012 Part 8, Clause 1.11 and 2.10 as applicable.

2.4 REJECTION

Standard

To AS 3600 Clause 19.1.7, with the addition that concrete shall be liable to rejection if the compression strength of any representative sample is less than 0.8 of the specified F'c.

Removal

Remove rejected concrete from the site.

Retention

Where the Contractor bears all costs associated with the testing and re-testing of work liable for rejection, the Superintendent may permit the retention of such hardened concrete on the basis of:

- the criteria in AS 3600 Clause 19.1.7.3;
- approval of the statistical information related to the concrete strength;
- approved remedial work;
- agreement by the Contractor to accept a deduction in the Contract Sum, valued at the absolute discretion of the Superintendent.

2.5 SURFACE REPAIR

Repair conditions

Concrete liable to rejection because of surface defects may in some cases be accepted subject to the successful repair of the defects. Repair may be attempted only if prior approval is given. The Superintendent may refuse approval, or, if approval is given, may reject the concrete if the repair is unsuccessful.

Repair procedure

Where repair is necessary and permitted, it shall be done at no cost to the Principal; carried out by skilled workmen; and completed within 24 hours after formwork stripping, or for unformed surfaces within 24 hours after concrete placing, or within such other greater interval permitted by the Superintendent.

Rejection

Approval will not be given to repair the following formed surfaces where bony concrete or the like defects exceed the extent defined in the following table:

	Location			
Extent of defective concrete:	Walls:	Slab soffits:	Beam sides:	Column Faces:
Isolated areas	0.1 m ² x 50 mm deep	0.25 m ² x 25 mm deep	0.05 m ² x 40 mm deep	Nil
Maximum total area	2% of surface	1% of surface	3% of any one surface	Nil

3 FORMWORK

3.1 FORMWORK GENERALLY

Standards

To AS 3610 and AS 3600 Clause 19.6.

Requirement

Design and construct formwork so that concrete, when cast in the forms, will have the dimensions, shape, location and surface finish required by the Contract.

Responsibility

The Contractor shall be responsible for the sufficiency of the formwork, except to the extent, if any, that formworks design is shown on the Drawings or specified.

Defective formwork

If formwork fails to meet the requirements of the Contract, the Superintendent may reject it and any concrete which has been cast in it. In that case, remove the rejected concrete, form construction joints, reconstruct the formwork and recast the concrete.

Inspection openings

Provide temporary openings at the base of column and wall forms and elsewhere where necessary or directed by the Superintendent, to facilitate cleaning and inspection prior to the placing of the concrete.

3.2 FORMWORK DOCUMENTATION

Requirement

Submit formwork documentation, to include the information contained in AS 3610, Clause 4.7, for the Superintendent's information.

Refer also to VISUALLY IMPORTANT SURFACES - CONCRETE.

3.3 VISUALLY IMPORTANT SURFACES

Definition

Visually important surfaces include, but are not necessarily limited to, concrete constructed using formwork classes 1, 2 and 3 to AS 3610.

Rejection

In accordance with AS 3610 clause 5.6.

Set-out

For visually important surfaces, set out formwork as shown on the Drawings, or if not shown, to give a regular arrangement of panels, joints, bolt holes and the like in all surfaces of visible elements. Obtain the Superintendent's approval of proposed methods and setouts for formwork.

Corners and angles

Unless otherwise specified –

- External corners and angles: Fillet the formwork corners so as to form chamfers on the concrete, 45 degrees bevel, 25 mm on the face.
- Internal corners and angles: Do not form fillets to interior corners or angles of formed concrete unless detailed as such.

3.4 DIMENSIONAL TOLERANCES

Standard

To AS 3610 Clause 3.4 as applicable for formed surfaces and otherwise to AS 3600 clause 19.5, except where the requirements of the following are more stringent.

Requirement

Formwork shall be constructed so that the deviation of any point on the surface of a concrete element from its correct position in space shall not exceed the value below. The deviation in beams and slabs shall be measured before the removal of shoring.

Formwork Class to AS 3610	Deviation from Absolute Correct Position
1	10 mm
2	15 mm
3	20 mm
4	25 mm

3.5 FORMED SURFACES

Standard

To AS 3610 table 3.3.1.

Off-form

Unless otherwise specified or shown on the Drawings, the minimum standard of finishes to formed surfaces shall be as follows:

Concrete element or surface:	Formwork class:
Normal architectural work and surfaces not otherwise specified	2
Civil engineering works	3
Surfaces to be rendered or hidden by other finishes	4
Surfaces permanently concealed (e.g. footings, rear faces of retaining walls)	5
Surfaces to be abrasive blasted, smooth rubbed, sand floated, grout floated or scrubbed	2

Surfaces to be bush hammered or tooled 2

3.6 FORM TIE BOLTS

Requirements

Use form tie bolts consistent with class of surface specified for member as a whole.

Fixing

Retain in place embedded tie bolts, and terminate not less than two diameters or twice the minimum dimension of the tie bolt or 10 mm whichever is the greater, in from the formed faces of the concrete. Construct the tie bolts so that removal of the ends or end fasteners can be done without spalling at the faces of the concrete. Keep form tie bolts clear of the steel reinforcement and under no circumstances use the steel reinforcement to support the formwork.

Making good

Thoroughly clean recesses resulting from the removal of ends of tie bolts, saturate with water and fill with mortar in the proportion of 1 part cement to 3 parts of the sand used in work in which the cavity occurs and float flush. If in the opinion of the Superintendent, the finished surface is not satisfactory, carry out further treatment using the mortar specified above and rub down with a medium coarse carborundum stone until a surface is produced consistent with the class and colour of surface finish specified for the member as a whole.

3.7 FORMWORK REMOVAL

Standards

To AS 3600 Clause 19.6 and AS 3610 Clause 5.4.3.

Minimum stripping times

All concrete: To AS 3600 Clause 19.6.2.

Concrete made with Type GP or SR cement: The recommended minimum stripping times given in the above standards.

Concrete made with other than normal (Type GP or SR) cement: Increase the stripping times given in the above standards as follows:

- Concrete made with Type LH cement: Increase the times by 3 days.
- Concrete incorporating pozzolanic materials: Increase the times by 50%.

Reduction of stripping times

Notwithstanding that the requirements for compressive strength have been satisfied, agreement to reduced stripping times will also be dependent on the Superintendent being satisfied that curing will not be adversely affected. If added curing procedures are required, they shall be at no additional cost to the Principal.

Reshoring

May be employed subject to prior approval.

Permanent loading

Do not place permanent loads, including masonry walls and the like, on concrete structure while it is still supported by formwork.

4 CONCRETE MATERIALS

4.1 MATERIALS

Concrete materials generally

To AS 3600 Section 19.

Fly ash and blended cement

Proportions: Notwithstanding the provisions of Australian Standards the proportion of fly ash by weight to the total mixture of cement and fly ash shall not be greater than 25%. Maintain constant fly ash content throughout project.

Source: Do not change source of supply without approval of Superintendent and advise Superintendent of any factors that could affect properties of the concrete including colour (e.g. change in quality of coal).

Chemical admixtures

Use admixtures only if specified or if prior approval has been given and then only as a working aid and not as a means of reducing the cement content.

Restrictions on chemical content

To AS 3600 Clause 4.9.

Chlorides: Notwithstanding the requirements of AS 3600, only use admixtures which are free of chlorides and/or compounds containing chloride.

Proof: Supply supportive evidence from a testing authority acceptable to the Superintendent that any proposed admixtures are chloride free.

Aggregate source

Submit to Superintendent for information the source(s) of supply of aggregate. Provide written statement from each supplier confirming availability of adequate reserves of uniform aggregate for duration of Contract.

4.2 MIX PROPORTIONS

Responsibility

Meet specified performance requirements shown on the Drawings. Take responsibility for the selection of mix materials and proportions.

Mix design

Submit concrete mix grading curves and mix design ratios to Superintendent's Representative for information, prior to commencing concreting operations, and for each subsequent variation of mix proportions.

Test Results: Supply laboratory results of strength tests on sample mixes if requested by Superintendent. Cost of provision of same shall be deemed to be included in the Contract Sum.

4.3 READY MIXED SUPPLY

Standard

To AS 1379, from an approved supplier. Deliver in agitating trucks.

Elapsed delivery time

Do not use concrete which is more than 1-1/2 hours old after the addition of cement to either aggregate or water.

Delivery docket

For each batch, obtain, keep and make available on request a docket containing the information required by AS 1379 Clause 1.7.3, and stating in addition:

- the concrete element or part of the works for which the concrete was ordered;
- the total amount of water in the concrete as delivered;
- the source of the coarse aggregate.

Site additions

Notwithstanding the provision of AS 1379, do not add water or any other material to the concrete at the site without approval of the Superintendent. For addition of water on site to be considered, it is a prerequisite that an appropriate measuring method satisfactory to the Superintendent be provided and that the delivery docket be endorsed by the manufacturer that water may be added at site. No claim shall be entertained arising from Superintendent's refusal to allow addition of water on site.

4.4 SITE MIXED SUPPLY

Manufacture

Mix concrete in an approved plant located on the construction site but complying with the relevant requirements of AS 1379 including Sections 4, 5, 6, 7 and Appendix A.

Plant and location

Take all responsibility for use and location of mixing plant and make good any consequent damage.

Elapsed time

Site mixed concrete is liable to be rejected if the elapsed time between the wetting and the discharge of the mix exceeds 45 minutes.

Mixing time

Not less than 90 seconds for mixes of 1 m³ or less. Increase by 30 seconds for each additional cubic metre or part thereof.

Emergencies

Mixing by hand in emergencies is not permitted.

5 REINFORCEMENT

5.1 REINFORCEMENT SUPPLY

Standard

To AS 3600 Clause 19.2.

Requirement

Supply and fix reinforcement, including the necessary tie wires, support chairs, spacers and the like.

Identification

Reinforcement shall be readily identifiable as to grade and origin.

Compliance with standard

Obtain from the manufacturer and furnish a certificate of compliance with the relevant standard AS 1302, AS 1303, or AS 1304, or furnish a test certificate to the relevant standard from an approved testing authority.

Bending reinforcement

Submit for approval details of proposed bending not shown on the Drawings.

Splicing reinforcement

Submit for approval details of proposed splicing not shown on the Drawings.

Welding reinforcement

Obtain permission before welding. Reinforcement which is not to AS 1302, AS 1303, or AS 1304, if permitted to be used, shall not be welded.

5.2 FIXING REINFORCEMENT

Tolerance on position

To AS 3600 Clause 19.5.3.

Reinforcement spacing

To AS 3600 Clause 8.1.7 and as shown on the Drawings.

Concrete cover

To AS 3600 Clause 4.10.2 and 4.10.3 and Section 5.

Fixing requirements

Secure the reinforcement against displacement by tying at intersections with annealed iron wire ties not smaller than 1.25 mm diameter, or by approved clips. Bend the ends of wire ties away from nearby faces of forms. The ties shall not project into the concrete cover.

Mats: In reinforcement in the form of a mat, secure each bar at alternate intersections, and at other points as required.

Beams: Secure each beam ligature to a bar in each corner of the ligature. Secure longitudinal beam reinforcement by spacers or ties at not more than 1000 mm intervals.

Columns: Secure longitudinal column reinforcement to all ligatures at every intersection.

5.3 REINFORCEMENT SUPPORTS

Standard

To AS 3600 Clause 19.2.5.

Support types

Use purpose-made concrete, metal or plastic supports. For exposure classification A1, provide a protective coating to ferrous metal which extends to the surface of the concrete. For exposure classifications more severe than A1 use plastic supports of adequate strength, or concrete supports of the same concrete mix as the concrete element.

Supports over membranes

Prevent damage to waterproofing membranes or vapour barriers. Place a metal or plastic plate under each support to prevent puncturing.

Support spacing

Maximum support spacing of slab reinforcement: 60 diameters for bars and 750 mm for fabric.

6 PLACING

6.1 PLACING AND COMPACTION

Standard

To AS 3600 Clause 19.1.3.

Method

Notwithstanding AS 3600, use any method, suitable to the compaction and location of the concrete, which will result in the strength and serviceability specified or shown on Drawings.

Generally

Place all concrete under the direct supervision of a suitable foreman experienced in concrete construction. For ready mixed concrete do not add water at the site except as provided in the clause READY MIXED SUPPLY - CONCRETE. Do not use concrete:

- (1) If the slump is not in accordance with the contract documents.
- (2) After the Maximum Elapsed Time as appropriate as specified in READY MIXED SUPPLY - CONCRETE.

Horizontal movement

Do not attempt to move a mass of concrete along the forms to its final position. Movement may be by means of suitable clean chutes, troughs or pipes. Do not use water to facilitate the movement.

Vertical movement

In vertical elements, limit the free fall of concrete to 1500 mm per 100 mm element thickness, by means such as enclosed chutes, access hatches in forms, and the like. As far as practicable keep chutes vertical and full of concrete during placement, with ends immersed in the placed concrete.

Layers

Place concrete in layers not more than 300 mm thick. Compact each layer before the preceding layer has taken its initial set, so that the two are blended by the compaction process.

Rain

Concrete exposed to rain before it has set, including during mixing, transport or placing, shall be liable to rejection.

Sequence of pours

Minimize shrinkage effect by pouring the sections of the work between approved construction joints in a sequence such that there will be suitable time delays between adjacent pours.

Minimum time delays: If the required sequence and minimum time delays are not shown on the Drawings submit a proposed sequence and times for approval. Do not place fresh concrete against hardened concrete which is less than 3 days old.

Compaction

Use vibrators and hand methods as appropriate to remove air bubbles and compact the mix. Use form vibrators where use of immersed vibrators is impracticable. Do not over-vibrate. Do not allow vibrators to come into contact with partially hardened concrete, or reinforcement embedded in it. Do not use vibrators to move concrete along the forms.

Pumping

Use pumped concrete only if approved. Submit details of the proposed mix when requesting approval.

6.2 HOT WEATHER PLACING

Requirement

The provisions of this clause shall apply to concreting when the surrounding shade outdoor temperature is greater than 32°C.

Mixing

Do not mix concrete when the outdoor shade temperature on the site exceeds 38°C, unless otherwise approved and then only subject to such conditions as may be imposed.

Handling

Take precautions to prevent premature stiffening of the fresh mix and to reduce water absorption and evaporation losses. Mix, transport, place and compact the concrete as rapidly as possible.

Placing

Before and during placing maintain the formwork and reinforcement at a temperature not greater than 32°C by protection, cold water spraying, or other effective means. When placed in the forms, the temperature of the concrete shall not exceed the following:

Concrete element:	Temperature limit:
Normal concrete in footings, beams, columns, walls and slabs:	32°C
Concrete in large mass concrete sections, or concrete of strength 40 MPa or greater, in sections exceeding 600 mm in thickness:	25°C

7 CURING AND PROTECTION

7.1 CURING

Standard

To AS 3600 Clause 19.1.5.

Generally

Protect fresh concrete from premature drying and excessively hot or cold temperatures. Maintain the concrete at a reasonably constant temperature with minimum moisture loss for the curing period.

Curing period (from time of placing)

Notwithstanding anything stated elsewhere to the contrary, cure continuously until the cumulative number of days or fractions thereof, not necessarily consecutive, during which the air temperature in contact with the concrete is above 10°C, totals not less than the following:

Concrete made with normal portland cement:	7 days
Concrete made with high early strength cement:	4 days
Concrete made with blended cement, fly ash or	

granulated blast furnace slag: 10 days

Curing methods

Submit for approval the proposed method of curing, which may include the following:

- ponding or continuous sprinkling with water (moist curing);
- an impermeable membrane;
- an absorptive cover kept continuously wet;
- steam curing;
- an approved curing compound (not for hot weather curing).

Certification

Certification to be in accordance with TESTING - CONCRETE.

Curing compounds

To AS 3799. Submit certified test results for:

- curing efficiency;
- discolouration of concrete surfaces;
- adverse effect on adhesion of applied finishes.

Hot weather curing

Cure concrete placed as specified in HOT WEATHER PLACING by one of the methods (but not curing compounds) specified in this clause under CURING METHODS. Immediately after placement cover the concrete with an impervious membrane, or hessian kept wet, until curing begins. As an alternative to immediate covering, where the temperature exceeds 25 degrees C, or where not protected against drying winds, protect the concrete with a fog spray application of aliphatic alcohol evaporation retardant, and then cure as above under CURING METHODS.

Visually important surfaces

Produce uniform colour on adjacent surfaces by uniform curing methods.

7.2 PROTECTION

Loading

Protect the concrete from damage due to load overstresses, heavy shocks and excessive vibrations, particularly during the curing period. Do not place construction loads on self-supporting structures which will overstress them. Provide calculations to justify the adequacy of the structure to sustain any construction loads.

Surface protection

Protect finished concrete surfaces from damage from any cause, including mortar splashes and stains, timber stains, rust, stains, chemical attack, additives, curing compounds, protective coatings, rain, running water, and the like.

8 EMBEDMENTS, CORES AND FIXINGS

8.1 FIXINGS AND EMBEDDED ITEMS

Standard

To AS 3600 Section 14.

Generally

Take responsibility for co-ordinating the provision of core holes and embedment requirements of all trades whether or not shown on the Contract Drawings.

No cores: Do not cut cores in hardened concrete without prior approval of the Superintendent.

General Guidance: Note that the requirements specified below, are given for general guidance only, and strict compliance therewith does not necessarily mean that approval will be automatic.

Shop drawings

If the locations of embedded items are not shown on the Drawings, or are shown diagrammatically, or if it is proposed to vary the locations shown, submit shop drawings showing the proposed locations, clearances, cover, and the like.

Structural integrity

In locating embedded items or in allowing for cored holes, do not cut reinforcement or hardened concrete, unless specifically provided for and clearly detailed on Drawings, or approved by the Superintendent.

Tolerances of placement

Unless otherwise shown on the Drawings or specified, permitted deviations from correct positions shall be:

- Embedded items generally: Plus or minus 10 mm.
- Fixings, anchor bolts and the like: Plus or minus 3 mm.

Pressure pipes

Where embedded pipes contain liquid or vapour at a pressure of more than 10 kPa, test for leaks and furnish the test results to the Superintendent.

Rejection

The cost of any additional lengths of pipe or conduit lines made necessary by the rejection of embedment or core proposals shall not be as grounds for a claim.

8.2 PROTECTION OF FIXINGS

Requirement

Embedded and inserted fixings, including anchor bolts and the like: galvanize to AS 1650 unless otherwise specified. Grease threads. Protect from damage during concreting and the like operations.

8.3 INSERTED FIXINGS

Limitation

Use fixings inserted by drilling (including masonry anchors and the like), or by explosive tools, only if specified or approved.

9 UNDERLAYS, MEMBRANES

9.1 SLABS ON GROUND

Requirement

Provide suitable bases, working bases and waterproofing underlays or membranes to concrete slabs laid on ground, of the types shown on the Drawings and specified here.

9.2 FILM UNDERLAY

Material

High-impact resistant polyethylene film.

Base preparation

Provide a working base of platform material, unless otherwise shown on the Drawings or approved by the Superintendent. Provide an even surface free of any projections likely to damage film underlays and adequate to provide a firm base for reinforcement supports, or any other items to be supported.

Installation

Lay over the base. Lap joints not less than 200 mm. Face the laps away from the direction of concrete pour. Seal laps with adhesive tape not inferior to double sided butyl adhesive tape. Similarly seal around unavoidable penetrations such as service pipes and the like. Take the underlay up vertical faces as far as the damp proof course where applicable, and fix at the top by tape sealing. Arrange to have vertical laps only join on vertical or inclined surfaces. Patch or seal any punctures or tears before pouring concrete.

10 JOINTS

10.1 CONSTRUCTION JOINTS

Standard

To AS 3600, clauses 14.1 and 19.4.1.

Generally

Do not place fresh concrete against hardened concrete which is less than 3 days old.

Location

Make construction joints where shown on the Drawings. Do not relocate or eliminate a construction joint, or make a construction joint not shown on the Drawings, without prior approval. This includes emergency construction joints made necessary by unforeseen interruptions to the concrete pour.

Joint preparation

Before fresh concrete is placed at a construction joint, roughen and clean the hardened concrete surface of the joint, so that all loose or soft material, free water, foreign matter and laitance is removed. Just prior to placement, dampen the hardened concrete surface, without leaving free water.

Finish at construction joints

Unless otherwise shown on the Drawings or specified, butt join the surfaces of adjoining pours. Comply with the tolerances specified in DIMENSIONAL TOLERANCES - CONCRETE. In visually important surfaces make the joint straight and true, and free from impermissible blemishes relevant to its surface finish class.

10.2 MOVEMENT JOINTS

Requirement

Construct movement joints (including expansion and contraction joints, isolation joints, and control joints) in the locations and to the details shown on the Drawings.

10.3 JOINT FILLING

Preparation

Where the Drawings show joints to be filled with jointing materials, including sealants, bond breakers, backing rods, preformed strips, and the like, dry and clean the joint surfaces before application, and prime if and as recommended by the joint material manufacturer.

Watertightness

Apply the jointing materials so that joints subject to ingress of water are made watertight.

Finish

Unless otherwise shown on the Drawings, finish visible jointing materials neatly flush with the adjoining surfaces.

10.4 JOINTING MATERIALS

Types

Use jointing materials of the types shown on the Drawings, as recommended by the material manufacturer for the location and type of joint, compatible with adjacent materials and non-staining to the concrete in visible locations.

Lead free

Use only materials free of lead.

Priming

Except where priming is not recommended by the jointing materials manufacturer, apply the appropriate primer to concrete surfaces in contact with jointing materials.

11 FINISHES

11.1 FINISHES

Locations

Shown on the Drawings or Schedule of finishes.

Off-form finishes

Specified in FORMED SURFACES – CONCRETE.

Tolerance classes

Tolerance classes noted on the Drawings or in the Schedule of Finishes shall be as follows, determined by a straight edge placed anywhere on the surface in any direction.

Class A

Maximum deviation from a 3 m straight edge: 3 mm.

Class B

Maximum deviation from a 3 m straight edge: 6 mm.

Class C

Maximum deviation from a 600 mm straight edge: 6 mm.

Screeding

Finish slab surface with a screed to finished levels. In the absence of anything to the contrary, produce surface to Class B.

Machine floated finish

Finish the screeded surface with approved power driven equipment to a uniform smooth texture. Hand float in locations inaccessible to the machine float.

Steel trowelled finish

After screeding, produce the final finish with steel hand trowels, free of trowel marks, uniform in texture and appearance.

Wood float finish

After screeding, produce the final finish with a wood float.

Scored finish

After screeding, give the surface a coarse scored texture in the direction shown on the Drawings, by drawing an approved scoring tool (broom, hessian belt, stiff brush, rake or the like) across the surface.

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