# placement guidelines



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#### **Concrete Specification**

- Concrete strength is to be S32 or S40
- Slump is to be  $80mm \pm 15$

#### Depth

• Depth shall be in accordance with the engineering specification.

#### Ordering

- Coloured concrete can be delivered in 0.1 cubic metre increments after 1 cubic metre (i.e. all load sizes to be a minimum of 1 cubic metre)
- Total m<sup>3</sup> in project to be nominated so that all materials can be ordered and allocated from the same batch (this will minimise colour variation)

#### **Sub Base preparation**

- Sub base should be clean and flat to allow adequate lateral movement for normal shrinkage and expansion.
- Sub base should be adequately wet to eliminate moisture absorption from the concrete.

### **Placement and Finishing**

• Adjacent areas where colour matching is important, should be completed within two weeks, or arrangements should be made with Hanson to ensure that adequate reserves of the same aggregates and materials are stockpiled for use over a longer period.

- Imagecretepolish incorporates a high aggregate content in its design for decorative purposes, and cannot be pumped through reduced diametre lines.
- Slump variation will contribute to variable aggregate exposure – high slump in particular will contribute to slower set, settling of coarse aggregates and mortar rich surface. No water is to be added after commencement of discharge
- Depressions in the fresh concrete caused by foot traffic, or aluminium screeding tools, must be refilled with the concrete mix, not just surface slurry.
- Thin and narrow sections within the form should be effectively compacted to avoid honeycombing or blemishes when exposed.
- Ensure that uniform surface finish and densification is achieved by the use of a weighted roller, float or trowel.
- The maximum size of concrete pour should be kept below 200 sq metres to allow placement crews adequate time to achieve the required surface finish.
- As the placement, compaction, and finishing procedures for Imagecretepolish is more labour intensive and time dependant than for normal concrete, it is common and good practice to include an extra man to assist with finishing procedures, (other than would be used for normal concrete finishing practices.)

- It is important to remember that the final uniformity of finish will not be assessed until the surface has been honed. It is therefore essential that good compaction technique is undertaken to minimise segregation and revealing the positioning of reinforcing steel.
- Pile-up the concrete and use an immersion vibrator for compaction.
- Use a roller or weighted bullfloat to minimise air bubbles
- Care should be taken to avoid uneven screeding that will cause 'screed-lines' of mortar and /or aggregate to become apparent when the surface has been ground. Over-screeding by an overlapping technique has been found to be an effective method to avoid this finishing problem.
- Use placing methods that minimise plastic cracking. Closing plastic cracking by merely trowelling is not sufficient, as they will again be revealed after surface grinding. If plastic cracking occurs during placement, they should be closed by careful and efficient surface compaction before re-trowelling.
- When hot dry and/or windy weather conditions prevail, an evaporative curing compound or aliphatic alcohol should be applied after floating to minimise plastic cracking.

# Curing

- Immediately after the completion of placement, one coat of a reputable curing compound should be applied to the surface in accordance with the manufacturer's recommendations
- Plastic sheeting should not be used as it can result in hydration staining from variable curing rates.

# Grinding

• Grinding operations should be undertaken 7 to 10 days after concrete placement.

#### **Slip Resistance**

• It is very important that the surface of any pavement meets the required Australian Standard for slip resistance.



