

### Important Note

This application manual is provided as a general guide for the application of Parchem Construction Supplies' Products. It is intended for use by applicators who have experience working with concrete and is not intended as an introduction to concrete practices nor is it intended for the use of homeowners. Concrete and similar materials are natural products and are expected to have natural variances and other factors beyond the scope of this document. As such, the suitability of any product or application technique should always be considered by the Applicator on a case-by-case basis before use. Existing conditions and surrounds should be taken into account and the necessary site and surface preparation carried out.

The details herein should be treated as advice only as they are based on the general case. The final decision to use any product rests with the Applicator based on knowledge of the particular site and having carried out any necessary suitability tests before application. Further advice should be sought before use if the intended Applicator is not certain of product suitability.

All appropriate safety precautions should always be in place before commencing work. Particular care should be taken to observe local council and EPA regulations at all times.

Licensing requirements should be checked in the individual areas where the work is to be carried out.

### Introduction

The Fauxtex stamped impression concrete system produces a durable decorative surface on concrete to simulate stone, slate, block and rock effects.

Fauxtex colour hardener is applied to the surface of freshly placed concrete and has been tested suitable as a decorative wear surface on hardened concrete used for pathways and roadways provided that:

- Installation is completed by experienced concrete contractors skilled in the application of the Fauxtex stamped impression concrete.
- The Fauxtex system is installed in compliance with the advice issued in this document.
- Control joints are placed in the concrete to control cracking induced by drying shrinkage and temperature change.
- When used in locations where frost resistance is required, the concrete is designed to resist freezing and thawing; i.e. air entrained concrete.

Installation of the Fauxtex stamped impression concrete specified in this document is independent from the design and suitability of the underlying concrete and for the supporting sub-base / ground.

### Recommended slump

Application of Fauxtex stamp impression concrete will benefit from concrete slump of between 80mm and 100mm. Slump in excess of 100mm may result in a weak surface and/or deep mortar lines.

### Equipment

In addition to all the necessary materials and tools required for the placement of the concrete the following are required:

- Enough quantities of the chosen Multi Mix Colour Hardener.
- Enough of the chosen colour release agent (RA).
- All the required stamp mats for the chosen pattern (minimum 5 mats plus a floppy, 5 poles)
- Hydrochloric Acid solution (diluted 30:1).
- Suitable tools for the desired final finish.
- All necessary Sealer and sealer application equipment.

NOTE: always confirm pattern and colour with customer.

### Placing and finishing concrete

Placing, compaction and finishing of concrete must be done in accordance with good concrete construction practice to achieve the required strength and durability expected of the concrete design. Finishing will influence the decorative effect, strength development rate and ultimate strength achieved by the Fauxtex Stamped Impression concrete.

### Crack control joints (crack inducement)

Recognised concrete construction practise requires that crack control joints are correctly placed in concrete concretes to allow shrinkage to occur as the concrete dries and to minimise the risk of cracks occurring randomly through the concrete.

Subject to concrete specification, reinforcement might normally be discontinued at joints to provide crack control. Control joints are also required to separate the work completed each day. For advice on placement of crack control joints in concrete and procedures to minimise risks of cracks in concrete generally, refer to 'Guide to Concrete Construction' published by the Cement & Concrete Association of Australia.

### Necessary Procedures

There are four (4) necessary steps which must be undertaken prior to the application of the Fauxtex Stamped Impression System:

#### (I) Compaction / levelling screed

Following compaction vibrating the concrete is recommended, screed the concrete surface levelled to the top edge of the formwork.

NOTE: Compaction of concrete is a mandatory first step for removal of entrapped air in the concrete to ensure that the hardened concrete will be strong and durable.

#### (II) Initial screeding (bullfloat)

Bullfloat the concrete surface to further compact the concrete and to correct any minor unevenness or disruptions. Do not overwork the concrete surface as this will increase the water/cement ratio near the surface. Check that the placed concrete is level with the top edge of the formwork.

### (III) Concrete edging

Edge the concrete along the perimeter of the formwork with an edging tool. Trowel out all edging tool marks.

### (IV) Bleed water

Bleed water will usually appear on the concrete surface after initial screeding. Do not work bleed water back into concrete, as this will only weaken the concrete surface. Excessive bleeding combined with overworking the concrete surface during initial screeding can increase the water / cement ratio near the surface and contribute to:

- Weaker surface layer of concrete - where bleed water is worked back into the concrete surface.
- Flaking surface - premature final finishing of the concrete surface while bleed water is still rising.
- Laitance over surface (efflorescence) - where rising bleed water carries small particles of lime to the surface resulting in white discolouration, this will have an affect on the final colour.

### Standard Application for Stamped Impression Concrete

- Multi Mix Colour Hardener is broadcast in a minimum two separate, even coats after concrete has been screeded and bull floated.
- Multi Mix Colour Hardener is applied by hand casting to freshly poured concrete. Ensure gloves and protective mask is worn.
- Dusting and/or colour staining may occur on surrounding exposed surfaces or structures. Masking with plastic sheeting is recommended where appropriate.
- Apply first coat after bleed water has disappeared, as hydrating bleed water may cause delamination.
- Apply at the rate of approximately 8-15 square metres per 20 kg bag (recommended 8m<sup>2</sup> per bag for commercial areas).
- After colour hardener has been applied, bullfloat or trowel total area to achieve a smooth even coloured surface.
- Over-trowelling the surface may cause cement slurry to rise through the colour hardener resulting in discolouration
- Under-trowelling the surface may weaken the compressive strength of the colour hardener, greatly reducing its service life.
- Repeat application process for second coat.
- Ensure all grey areas are covered with an even coat of colour hardener. Allow colour hardener to absorb some moisture from the fresh concrete surface. This can be seen by the colour hardener 'darkening' as it absorbs moisture.

- A third coat may be required, depending on the colour, (lighter colours get less m<sup>2</sup>). Allow approximately 8m<sup>2</sup> per bag for lighter colours.
- Trowel-in colour hardener. There are many different types of finishing techniques and these should be selected depending on site requirements, customer choice, and contractor preference.

### Important

All coats of colour hardener must be sufficiently trowelled to ensure durability of decorative surfaces.

Prevailing weather conditions combined with inappropriate mix designs of concretes can limit the time for concrete placement and finishing and the application

### Application of Release Agent

Release agent is required for the stamp application process. Release agent is a specially formulated dual purpose product, which aids in the clean release of the stamps from the surface of hardening concrete and adding a highlight colour in the low points after stamping has taken place. Release agent is best applied when the surface of the concrete is at or around initial set. Stamping early will leave the surface stippled. This product is best used at a minimum, excessive application rates are detrimental to the final appearance of the Fauxtex stamp impression concrete system. Release agent may cause irritation to skin or eyes, always wear a dust mask and gloves when handling this product.

### Application of Liquid Release Agent

Some mould materials may be affected by Liquid Release Agent therefore check before use.

Shake contents vigorously before use and during application (as colour is designed to settle) and ensure colour is suspended.

Immediately after shaking, pour contents into a suitable metal spray bottle.

Pump up pressure to ensure a fine spray.

When concrete is ready to stamp, ensure moulds are clean and apply a light spray of Liquid Release Agent evenly over the moulds.

Apply Liquid Release Agent with a fine spray evenly ahead of the area to be stamped. More Liquid Release Agent will give more of a two-tone effect. Shake sprayer regularly throughout the application process to ensure pigment suspension.

A stronger secondary colour effect can be achieved by spraying further Liquid Release Agent over the surface after stamping. This can also be done after the concrete is hardened, but before sealing.

## Liquid Release Agent important notes

- For very steep areas use clear Liquid Release Agent for stamping. After stamping use multiple fine light sprays of coloured Liquid Release Agent to develop two-tone effect. Ensure colour release does not run.
- Should not be used in temperatures exceeding 40°C without special care. May reduce the usable life of some moulds. Check before use.

## Application of Powdered Release Agent

- Fluff up release agent using a mechanical drill and mixer.
- Release agent is best applied by casting, using a long bristled brush immediately in front of area to be stamped.
- Do not trowel.

Release agent application rate: 60-80 m<sup>2</sup> per 10 kg bucket.

## Powdered Release Agent important notes

- Application should be timed in relation to set of concrete and free surface water.
- If too wet, moisture can come through and affect the application and control of the moulds.
- Uneven application can lead to wet spots, giving pick up of the Powdered Release Agent on to the moulds. This gives an uneven colour pattern on the finished concrete.
- Any Powdered Release Agent sticking to the moulds has to be constantly cleaned to stop build up and severe uneven effects on the concrete.
- Moulds left on the same position for too long will cause water bleed.
- Excess Powdered Release Agent left adhering to the concrete can cause delamination of the sealer.

## Stamping the Concrete Surface

Once the release agent is applied it is time to begin stamping. Areas of concrete in the sun will be harder faster than in shady areas. In a sunny area of the concrete, place the first stamp on the concrete adjacent to one edge of the formwork and apply pressure by walking on the stamp evenly across the surface.

Remove the stamp (on an angle to avoid any suction which may cause stippling) and check the stamped surface for stippling. If stippling occurs then wait longer before continuing. If the stamped area appears as a reverse of the stamp and there is no stippling, then continue stamping. Always take care to align the edges of the stamps and to rotate through the stamps in order to give the appearance of a random pattern.

Where vertical walls, posts and other obstacles are encountered, it may not be possible to use the rigid mat. In this instance the floppy mat should be used. Always leave enough time to stamp the surface before the concrete hardens too much. A stamping tamper can be used when

concrete hardens to a point where stamping is difficult. An even amount of texture and impression across a concrete is desirable. Never leave stamps on the concrete surface longer than necessary.

Using stamps as a bridge to walk across the surface of the concrete for extended periods of time can lead to stippling and a poor final appearance of impressions. After stamping is complete the mats should be cleaned and the concrete (and Release Agent) should be left for approximately 24 hours to harden.

## Removal of the powdered release agent

After stamping is complete and the concrete left for approximately 24 hours to harden, it is time to remove the excess Release Agent. It is most important that the excess be removed to help the sealer to adhere to the concrete surface and to minimise colour inconsistencies.

After at least 24 hours use a medium bristled broom and/or a hose to remove all excess release agent. A general purpose cleaner should be used. This loose material should be disposed of according to local requirements.

## Acid washing the surface

Acid washing will aid in removal of excess release agent after initial cleaning.

- Allow 5 days after stamping before the application of acid to the surface.
- Use acid diluted to approximately 30:1 (water:acid)
- Apply diluted acid to surface using a large head watering can, applying in a criss cross motion. Immediately broom any excess Release Agent off.
- Hose surface to completely remove all acid solution and neutralise the surface. Ensure acid does not dry on the surface. Dried acid can cause staining and poor sealer adhesion and delamination.
- Always do a test patch with the acid to ensure that it does not etch the surface excessively.
- Always wear gloves and safety glasses when using acid.
- Washing release agent down storm water drains may damage the environment.
- Always use sand bags to dam the catchment area. A slurry pump can then be used to transfer to a suitable discharge point or container.

## Sealing

- Parchem recommend allowing concrete to cure for minimum 14 days before cleaning and sealing.
- Refer to relevant Lustre Seal Sealer Technical Data Sheet.

# Fauxtex® Multi Mix Stamp Application

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## **Important notice**

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

## **Product disclaimer**

This Application Guide summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read all literature carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.