

## Flowshield OP (4mm)

A high performance, solvent free, chemical resistant, high-build epoxy resin-based flooring solution with non-slip textured aggregates.

Typically used as a hard-wearing, coloured protective floor finish in industrial environments



### Slip Resistant:

Textured aggregates provide non slip traction underfoot.



### Chemical Resistant:

Provides enhanced resistance against a range of chemicals.



### Low Maintenance:

Seamless, hygienic finish, which requires low maintenance.



### Durable:

Hard wearing, durable and abrasion resistant.

## Technical Profile

### FIRE RESISTANCE

EN 13505-1	Bfl-s1
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### SLIP RESISTANCE

Method described in AS4586-2013	Dry & Wet Rating is dependant on specification (in accordance with AS4586-2013)
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The slipperiness of flooring materials can change significantly, due to the installation process, after short periods of use, due to inappropriate maintenance, longer-term wear and/or surface contaminants (wet or dry).

Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet or dry) - please contact our Technical Advisors for further details

### TEMPERATURE RESISTANCE

Tolerant up to 60°C

### WATER PERMEABILITY

Karsten Test	Nil (Impermeable)
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### BOND STRENGTH

ASTM D4541 (Pull-Off Test)	> 1.5MPa*
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### ABRASION RESISTANCE

Taber Abrader 1 kg load using CS17 wheels	90mg loss per 1000 cycles
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### COMPRESSIVE STRENGTH

BS6319	> 60 N/mm <sup>2</sup>
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### FLEXURAL STRENGTH

BS6319	> 40 N/mm <sup>2</sup>
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### TENSILE STRENGTH

BS6319	> 15 N/mm <sup>2</sup>
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### CHEMICAL RESISTANCE

Contact Technical Department

SPEED OF CURE**	10°C	20°C	30°C
Light Traffic	30 hrs	24 hrs	12 hrs
Full Traffic	72 hrs	48 hrs	24 hrs
Full Chemical Cure	12 days	7 days	6 days

These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity. Textured systems are recommended to meet slip resistance value requirements for wet conditions and/or surface contaminants (wet/dry). Please contact our Technical Advisors for further details.



Light N Grey   Steel Grey   Charcoal   Tile Red



Light Green   Dark Green   Steel Blue   Mid Blue

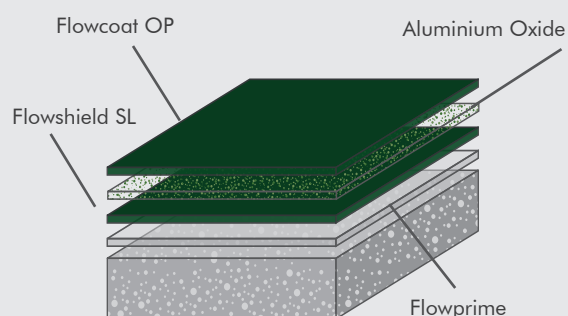
The applied colours may differ from the examples shown.  
For a full colour chart and samples, contact your local Flowcrete office.

## Model Specification

<b>System</b>	Flowshield OP
<b>Finish</b>	Gloss
<b>Thickness</b>	4mm
<b>Distributor</b>	Altex Coatings Ltd
<b>Contact</b>	+64 7 541 1211

Preparatory work and application in accordance with manufacturer's instructions.

## System Design



## Products Included In This System

<b>Layer 1</b>	Flowprime
<b>Layer 2</b>	Flowprime * 2nd Coat If Required for Porous Surfaces
<b>Layer 3</b>	Flowshield SL
	Aluminium Oxide
<b>Layer 4</b>	Flowcoat OP

## Coving

Coving can form an integral part of the flooring system. It creates a sealed finish between the floor and wall joint. Please refer to Flowtex F1 Coving Mortar for further information.

## Substrate Requirements

Concrete or screed substrate should be a minimum of 25 N/mm<sup>2</sup>, free from laitance, dust and other contamination. Substrate should be dry to 75% RH as per ASTM F2170

(AS1884:2012).

## Installation Service

The installation should be carried out by a qualified contractor with a documented quality assurance scheme. For details of our recommended contractors, contact your local Altex Coatings Ltd office. Detailed application instructions are available upon request.

## Environmental Considerations

The finished system is assessed as non-hazardous to health and the environment. The long service life and seamless surface reduce the need for repairs and maintenance. Environmental and health considerations are controlled during manufacture of the products by Flowcrete staff.

## Aftercare, Cleaning & Maintenance

Clean regularly using a single or double headed rotary scrubber drier in conjunction with a mildly alkaline detergent. Please refer to Flowcrete's Cleaning & Maintenance Guide for further information.

## Warranty

Flowcrete products are guaranteed against defective materials and manufacture and are sold subject to our standard 'Warranty, Terms and Conditions of Sale', copies of which can be obtained on request. Warranty does not cover suitability, fit for purpose or any consequential or related damages. Please review warranty in detail before installing the products.

# Method Statement

<b>System</b>	Flowshield OP
<b>Specification</b>	4mm Non Slip Gloss Finish

This specification assumes a concrete compressive strength greater than 25 N/mm<sup>2</sup>, application and curing temperatures of 10–35°C, the presence of an effective damp proof membrane below substrate and concrete moisture content less than 75% RH. If moisture content is above 75% RH, please contact Altex Coatings Ltd.

This specification must be read in conjunction with relevant product technical data sheets and the application of all materials is to be strictly in accordance with manufacturer’s instructions.

<b>Distributor</b>	Altex Coatings Ltd
<b>Telephone</b>	+64 7 541 1211
<b>Email</b>	newzealand@flowcrete.com

## Outline for Installation

<b>Mechanically Prepare Substrate</b>	
<b>Apply Flowprime</b>	@ 0.2kg/m <sup>2</sup>
<b>Apply Flowprime *If Required for Porous Surfaces Only</b>	@ 0.2kg/m <sup>2</sup>
<b>Apply Flowshield SL</b>	@ 3.6kg/m <sup>2</sup>
<b>Fully Broadcast Non Slip Aggregate</b>	@ 3-4kg/m <sup>2</sup>
<b>Apply Flowcoat OP</b>	@ 0.55kg/m <sup>2</sup>

## Storage

12 months in an unopened packaging stored at a temperatures of 5-40°C.

Protect from frost, weather, moisture and contaminant ingress.

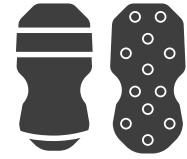
## Application Equipment

The use of correct application equipment is critical as incorrect application tools can result in poor finishing and incorrect material consumption. Always test the application equipment prior to commencing work.

The following equipment is recommended for this application.



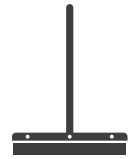
10-12mm Nap Roller Cover - Lambswool  
\*Rolana or Equivalent



Spike Shoes



Slow Speed Drill with Helical Mixer Head



Squeegee



Flat & Notched Steel Trowel



Spike Roller



Pin Rake

## Safety Precautions

Wear appropriate Personal Protective Equipment (PPE) including masks, gloves, eye protection and protective clothing during mixing and application. Ensure the working area is well ventilated and follow the appropriate Health and Safety guidelines applicable to the location where the application is undertaken.

## Material Set-Up

Before commencing work ensure that your material is set-up by separating all components (e.g. Base A, Hardener B, Filler C etc.) to ensure that all material is correct. Check product labels and ensure there are equal amounts of product.

## Site Set-Up

Before commencing work ensure that your site is set-up. Mark the floor according to the specification with masking tape or similar to clearly identify what area (m<sup>2</sup>) each unit will cover. If this is not achieved (greater or less consumption than the specified amount) immediately stop and contact Flowcrete.

## Surface Preparation

Surface preparation is to be completed by totally enclosed (light shot blasting) or coarse diamond grinding. All cementitious laitance must be removed to expose a sound substrate and provide a dry, dust free, open textured surface. All hard to reach areas and areas around the perimeter must be prepared using hand held preparation equipment.

Any damaged areas must be repaired with Flowtex F1 mortar. Consult Flowcrete prior to using an alternative repair mortar. Any rough or uneven areas must be made smooth with Flowcoat SC (Universal Resin Base A, Universal Hardener B, Sand/Flour). Consult Flowcrete prior to using an alternative epoxy scratch coat.

## Application of Flowprime

The substrate must be surface dry before the application of Flowprime.

### 1. Mixing Flowprime

Decant required amount of material by weight using digital scales.

Stir Base A to re-disperse any settlement. Add Hardener B to the Base A container, and drain thoroughly. Mix with a slow speed drill and helical spinner head for 1 minute, taking care not to entrain air. Transfer to a clean container and remix for 30 seconds.

### 2. Application

Immediately after mixing, apply the Flowprime by squeegee and/or roller.

Apply a 2nd coat of Flowprime as above if required for porous surfaces.

## Application of Flowshield SL

The substrate must be surface dry before the application of Flowshield SL. Flowshield SL must be applied within 24 hours following the application of Flowprime.

### 1. Mixing

Decant required amount of material by weight using digital scales. Flowshield SL is a multi-pack system comprising of Universal Resin Base A 708, Universal Hardener B, Universal Colour Pot (CP) and graded fillers.

Stir Base A to re-disperse any settlement. Add Pigment (if supplied separately) and mix until uniform. Add Hardener B to the Base A container, and drain thoroughly. Mix with a slow speed drill (maximum 650rpm) and helical spinner head for 60 seconds, taking care not to entrain air. Add graded aggregates and mix until uniform.

## 2. Application

Immediately after mixing, apply the Flowshield SL by pin rake and/or notched or flat steel trowel to the required thickness. Immediately spike roll the surface to assist with levelling and to release any entrained air. After surface is spike rolled and Flowshield SL is still wet, fully broadcast with non slip aggregate until refusal. Allow to cure. Sweep and vacuum to remove any loosely bonded aggregate.

## Application of Flowcoat OP

The substrate must be surface dry before the application of Flowcoat OP. Flowcoat OP must be applied within 24 hours following the application of Flowshield SL.

### 1. Mixing

Pack components are pre-weighed for optimum performance. We recommend that you do not split or proportion packs, however, if required it must be completed by weight using digital scales.

Stir Base A to re-disperse any settlement. Add Pigment (if supplied separately) and mix until uniform. Add Hardener B to the Base A container, and drain thoroughly. Mix with a slow speed drill and helical spinner head for 90 seconds, taking care not to entrain air. Add between 2 - 7% (depending on conditions) Xylene and mix for a further 30 seconds.

### 2. Application

Immediately after mixing, apply the Flowcoat OP by squeegee and roller. Allow to cure.

## Trafficking

Allow to cure for a minimum of 24 hours at temperatures no less than 10°C before light trafficking.

## Note

When printed or saved externally, this document is uncontrolled and therefore may not be the latest version. Any recommendation or suggestion relating to the use of the products made by Altex Coatings Ltd., whether in its technical literature, or in response to a specific enquiry, or otherwise, is based upon data believed to be reliable, however the products and information are intended for use by Customers having requisite skill and know-how in the industry and therefore it is for the Customer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that the Customer has done so at its sole discretion and risk.

## Additional Notes

1. Maximum overcoat time is 24 hours.
2. The product is fully hardened after 5–7 days.
3. The applied colours may differ from the examples shown.
4. Light and vibrant colours may require additional coats to achieve desired results.
5. Flowcrete assumes no responsibility for the application of incorrect colour.
6. It is recommended that top coat colours match base coat colours to achieve desired results.
7. This system is not UV stable and will discolour unless otherwise stated.
8. Do not cover or wash within the first 24 hours of curing.
9. This system should have no contact with water for 5 days at 22°C or blooming may occur.
10. This system should be installed at 3°C above the dew point.
11. A low temperature/high humidity environment can cause blooming issues.
12. Please ensure application temperature and RH limits are followed.
13. Wind or strong airflow may cause quick curing and drying of the system.
14. Ensure wind or strong airflow is eliminated during application, however adequate safety ventilation should still be followed.
15. Direct heat during application of the system can cause flash curing and potential delamination. Ensure you do not apply this system to substrates with temperatures exceeding 35°C.