

Flowshield OP (2.5mm)

A high performance, solvent free, chemical resistant, high-build pigmented epoxy resin-based flooring solution.

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



Low VOC:

The coating is low in odour and Volatile Organic Compounds.



Chemical Resistance:

Provides enhanced resistance against a range of chemical



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

SLIP RESISTANCE*

Method described in AS4586-2013 P2

TEMPERATURE RESISTANCE

Tolerant up to 65°C

WATER PERMEABILITY

Karsten Test Nil (Impermeable)

BOND STRENGTH

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

ABRASION RESISTANCE

Taber Abrader 1kg load using CS10 wheels 80mg loss per 1000 cycles

COMPRESSIVE STRENGTH

BS6319 > 60 N/mm²

FLEXURAL STRENGTH

BS6319 > 40 N/mm²

TENSILE STRENGTH

BS6319 > 15 N/mm²

SURFACE HARDNESS

Koenig Hardness Test 180 secs.

CHEMICAL RESISTANCE

Contact Technical Department

SPEED OF CURE***	10°C	20°C	30°C
Foot Traffic	48 h	24 h	18 h
Vehicular Traffic	96 h	72 h	48 h
Full Chemical Cure	12 d	7 d	6 d

**Assume concrete or substrate is a minimum of 25 N/mm².

***These figures are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity.



Terracotta



Serpentine



Bluebell



Light Grey Blue



Pastel Grey



Light Grey



Bridge Grey



Dark Grey



Straw



Mushroom

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

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/mm², free from laitance, dust and other contamination. Substrate should be dry to 75% RH as per ASTM F2170 (AS1884:2012). Slab on ground concrete must have an effective damp proof membrane in place.

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 Flowcrete 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.

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.

Important

This specification assumes a concrete compressive strength greater than 25 N/mm², application and curing temperatures of 5–35°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 Flowcrete Australia.

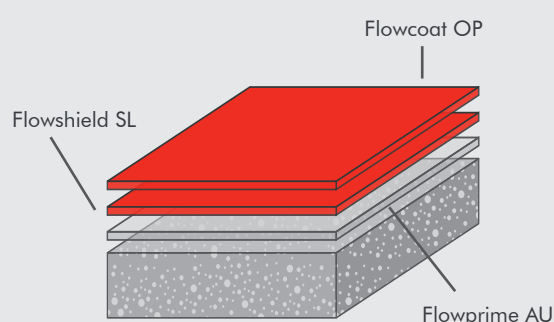
This specification must be read in conjunction with relevant product technical data sheets and the application of all materials is to be strictly in accordance with manufacturer's instructions.

Model Specification

System	Flowshield OP
Finish	Gloss
Thickness	2.5mm
Manufacturer	Tremco CPG Australia Pty Ltd
Contact	+ 61 7 3205 7115

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

System Design



Products Included In This System

Layer 1	Flowprime AU
Layer 2	Flowprime AU * 2nd Coat If Required for Porous Surfaces
Layer 3	Flowshield SL
Layer 4	Flowcoat OP

Manufacturer Details

Manufacturer	Tremco CPG Australia Pty Ltd
Address	63 Radley Street
Suburb	Virginia
State	QLD
Postcode	4014
Telephone	+61 7 3205 7115
Email	australia@flowcrete.com

Outline for Installation

Mechanically Prepare Substrate	
Apply Flowprime AU	@ 0.2kg/m ²
Apply Flowprime AU*	@ 0.2kg/m ²
*Primer only if required for porous substrates.	
Apply Flowshield SL	@ 3.6kg/m ²
Apply Flowcoat OP	@ 0.2kg/m ²

Storage

Time	12 Months in Unopened Packs. If longer than 12 Months consult Flowcrete.
Temperature	Storage temperature between 5°C and 35°C.
Protection	Should be stored inside and protected from frost, weather, moisture, direct sunlight and contamination ingress.

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 (m²) each unit will cover. If this is not achieved (greater or less consumption than the specified amount) immediately stop and contact Flowcrete.

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
*Do not use Microfibre



Spike Shoes



Slow Speed Drill with
Helical Mixer Head



Squeegee



Flat & Notched Steel
Trowel



Spike Roller



Pin Rake

Surface Preparation

Concrete should be finished by steel trowel. 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 Temperature

The recommended material and substrate temperature is 5 - 35°C, but no less than 5°C. The temperature of the substrate should exceed the "dew point" by 3°C during application and hardening.

Temperatures should not fall below 5°C in the 24hrs after application.

Application / Pot Life

Ready-mixed product should be used within 20 minutes at a temperature of 20°C. At higher temperatures (or if left in bucket) the application time is shorter.

Decant mixed product into smaller quantities if applying small/detailed areas.

Application of Flowprime AU

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

1. Mixing Flowprime AU

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.

Add between 2 - 7% (if required depending on conditions) Xylene and mix for a further 30 seconds.

2. Application

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

Apply a 2nd coat of Flowprime AU as above if required for porous surfaces within 24 hours at 20°C.

Application of Flowshield SL

The previous coat must be surface dry before the application of Flowshield SL. Flowshield SL must be applied within 24 hours at 20°C following the application of Flowprime AU.

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 and/or flat steel trowel to the required thickness. Immediately spike roll the surface to assist with levelling and to release any entrained air. If required this process can be repeated after approximately 20 minutes at 20°C. Allow to cure.

Application of Flowcoat OP

The previous layer must be surface dry before the application of Flowcoat OP. Flowcoat OP must be applied within 24 hours at 20°C 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 this 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/or roller. Allow to cure.

Cleaning

Tools and equipment can be cleaned with MEK/Acetone/Xylene. Please refer to SDS when using solvents.

Trafficking

Allow to cure for a minimum of 24 hours at temperatures no less than 20°C before foot traffic and 72 hours before vehicular traffic.

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 Tremco CPG Australia Pty 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 at 20°C.
2. The product has reached full chemical cure after 7 days at 20°C.
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 the applicators responsibility to verify accuracy of colour prior to application. Flowcrete does not bear any responsibility or accept claims for incorrect colour after application of material.
7. It is recommended that top coat colours match base coat colours to achieve desired results.
8. This system is not UV stable and will discolour unless otherwise stated.

9. This system should have no contact with water for 5 days at 20°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.
16. The specific slip test rating (P0-P5 range) noted in this document is based on the system design, products listed, coverage rates and specific aggregate outlined in this document. This slip test rating can and will change if the standard specification details or installation methods are altered in any way. The specific slip rating (P0-P5 range) noted in this document is based on 96 Rubber slide testing on level non-inclined surfaces. Applicators should refer to methods outlined in AS4586-2013 and SA HB 198:2014