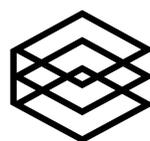


Architectural Specification

ECOTONE MINERAL STAINS



ECOTONE
Colour for life

GUIDELINES FOR AN ARCHITECTURAL SPECIFICATION FOR CONCRETE USING ECOTONE MINERAL STAINS

1. General

This specification covers the materials, preparation and services needed for the application of a concrete colouring mineral silicate emulsion stain on above ground, vertical and exterior exposed surfaces of new and existing unsealed concrete surfaces. The information below is to assist in the preparation of a project specification.

1.1. Variations:



1.2. Documents referred to:

- ECOTONE SDS for Minsil and Minsil Sharp
- ECOTONE SDS for Concrete Surface Cleaner (CSC)
- ECOTONE 25 Year Limited Guarantee
- ECOTONE Mineral Operations & Maintenance Manual

Documents listed above and cited in the clauses that follow are part of this specification. However, this specification takes precedence in the event of it being at variance with the cited document. Copies of the above literature are available from:

ECOTONE in Australia
Email: information@ecotonecoatings.com
Telephone: 1300 ECOTONE / 1300 326866
Website: www.ecotonecoatings.com

ECOTONE in New Zealand
Email: nzsales@ecotonecoatings.com.au
Telephone: 0800 ECOTONE / 0800 3268663
Website: www.ecotonecoatings.co.nz

1.3. No Substitutions

Substitutions are not permitted to any specified manufacturer's system, or associated components and products

1.4. Qualifications

ECOTONE has more than 20 years' experience in Australia and New Zealand in the supervision and application of the products specified in this section. Only approved applicators trained in the application of the stains and with the proper well-maintained equipment are to be used to ensure the 25-year limited guarantee.

2. Materials

ECOTONE Minsil and ECOTONE Minsil Sharp are the brand names for the mineral silicate emulsion stain manufactured by ECOTONE. ECOTONE Minsil Sharp is a semi-gloss version of ECOTONE Minsil for sharp colours and metallic finishes.

ECOTONE Minsil and ECOTONE Minsil Sharp are extremely durable aqueous mineral silicate-sol based stains for concrete and masonry surfaces. They penetrate and bond to dense materials. The thin base keeps natural surfaces from being covered up, whilst providing the desired colour. ECOTONE colour technicians and accredited applicators custom blend light fast colorants and incorporate these in the formulation to achieve the natural colour finish required.

We customise the application and the degree of translucency to meet the aesthetic requirements whilst always maintaining the natural look. This product can be applied in colour densities from a wash of faint colour through to full opacity.

ECOTONE Minsil and ECOTONE Minsil Sharp are highly effective at blending away colour variations that naturally occur in the manufacture of concrete. This includes blending away unsightly or mismatching patch repairs and skim coat finishes.

ECOTONE Minsil is Low VOC with a VOC of <1g/litre. It is non-hazardous and non-dangerous according to criteria of NOHSC & the ADG code.

3. Surface Preparation

Concrete surfaces must be clean and dry. Patch repairs should be finished flush to the surface and finished to the same texture. Where possible a patch should be the same shade or a slightly lighter shade in colour than the surrounding concrete surface. The patching material should meet industry and manufacturer standards and be exterior grade.

The surface shall be tested by water misting over the surface to assess evenness of surface absorption and degree of water absorption. Where unevenness or incomplete absorption of the surface to moisture is confirmed then cleaning of the surface with ECOTONE CSC is necessary. Apply ECOTONE CSC to the concrete surface and rinse completely off before the surface dries. This eliminates the possibility of loosened material re-absorbing onto the surface. To maximise penetration of the stain it is recommended that the concrete surface is washed prior to emulsion colouring to remove any surface lime efflorescence and mould release residues.

At a minimum the prepared concrete should be rinsed free of dust or where conditions prevent washing down the concrete must be thoroughly broomed/brushed to remove dust and loose materials prior to coating.

Concrete surfaces should be a minimum of 3 days old. Precast element surfaces should not be exposed to driving rain for at least 8 hours after the application of the ECOTONE Colouring Process.

The surface cleaning agent (ECOTONE CSC) is a water-based, non-hazardous, concrete surface cleaner and is recommended to be used for all concrete surfaces that have surface presence of calcium efflorescence preventing even water absorption of the concrete surfaces.

4. Application

ECOTONE mineral silicate emulsion stain (ECOTONE Minsil, ECOTONE Minsil Sharp) is colour blended to a reference standard and will be produced as recommended by the manufacturer.

These products are applied by the chosen technique that best suits the method of construction whilst meeting the designed colour finish specification. Examples of techniques used to apply the ECOTONE Minsil and ECOTONE Minsil Sharp are hand applications such as roller, pad, brush, as well as machine applications such as misting, spraying, and spattering.

5. Environmental Requirements

Substrate temperature must be above 5°C or below 40°C. Application cannot proceed if the substrate is wet, contains frozen water, or if rain is likely within 8 hours.

6. Protection

Protect all surrounds, metal, wood trim, glass, asphalt and other building hardware during application from over spray/roller splatter if applicable. Do not permit mist (if spraying) or liquid to drift onto surrounding properties. Any surfaces inadvertently affected by colour should be cleaned with water immediately. Do not allow to dry. Protect adjacent surfaces against overspray or roller spatter where required.

7. Clean Up

At completion of staining, all excess materials, empty containers, and waste must be removed from the jobsite. Return all unused stain to the warehouse for recycling or disposal to landfill after solidifying.

8. Submittals

8.1. Product Data

Submit manufacturers' technical literature, specifications, and application instructions for ECOTONE mineral silicate emulsion stain (ECOTONE Minsil, ECOTONE Minsil Sharp) as manufactured by our ECOTONE team.

8.2. Environmental Regulations

The concrete colour finish material to be applied is in compliance with environmental Volatile Organic Compounds (VOC) regulations and is classed as non-hazardous, non-dangerous according to criteria of NOHSC & the ADG code. ECOTONE Minsil is low VOC with a VOC of <1g/litre.

8.3. Control Panel

The submission of a control panel will become the reference standard of quality. Application of the concrete colouring emulsion to the control panel is to be as per the manufacturer's instructions and to achieve the desired effects as directed by the architect. After the sample treatment has cured in accordance with manufacturer's recommendations, verify the substrate is coated with sufficient colouring emulsion to produce the desired appearance and colour (One coat application of ECOTONE stain is as durable as multi coating).

Obtain the approval of the architect and/or project owner for the coverage, appearance, and colour of the control panel prior to full scale application to application to concrete surface.

9. Product Delivery and Storage

Deliver all materials to the job site in original sealed containers that is clearly marked with the manufacturer's name, brand name and type of material and colour, or colour formula. Verify the product matches that of the original sample applied on the control panel.

Store and handle according to manufacturer's written instructions provided. Store all materials inside, if possible, away from sparks or open flame in a secure area to avoid tampering and contamination. Water-based materials must be kept from freezing.

10. Maintenance

10.1. Balconies and Balustrades

Balconies are normally exterior surfaces so generally are exposed to weathering. Balconies are also living areas, so may be exposed to more severe impact and abrasion than interior walls due to their use as relaxation and entertaining areas combined with movement of outdoor furniture, barbeques, and pot plants.

The surfaces exposed to human traffic are likely to suffer impact and abrasion. Such impact and abrasion marks may not wash off, and repair by reapplication may be necessary. ECOTONE products can be top coated with impact and abrasion resistant clear coatings, to retain more superior resistance to impact and abrasion.

10.2. General Maintenance

ECOTONE colour treated products require virtually no maintenance as it will inherently repel dirt and grime. An occasional hosing down with water will remove any dust accumulated over time. Harsh treatments that are aggressive or abrasive are to be avoided.

Periodic cleaning will involve the use of a suitable biodegradable detergent and cold water. In cases where the soiling is not stubborn, a wash down with water alone may suffice.

Pressure washers above 1000 psi should never be used on the wall. It is recommended the tip of the spray nozzle is always kept at least 500mm from the wall during cleaning with a fan angle of minimum 15° be maintained during cleaning.

- Do not use turbo head attachments when pressure cleaning
- Cleaning using high pressure hot water or steam cleaning is not recommended
- Strong acids such as HCl, abrasive cleaning methods and the application of adhesives and adhesives tapes should all be avoided

For cleaning of stains other than atmospheric grime please contact our ECOTONE team in Australia on 1300 ECOTONE (1300 326866) information@ecotonecoatings.com or our team in New Zealand on 0800 ECOTONE (0800 3268663) nzsales@ecotonecoatings.co.nz for advice.

Please also refer to the ECOTONE Mineral Operations & Maintenance Manual for more information.

11. Guarantee

ECOTONE shall guarantee its' concrete colour material against failure in material and 25 years from the date of application. When our ECOTONE team are contracted to supply, and apply, the guarantee covers supply and replace of any faulty materials and/or workmanship.

12. Selections

12.1. ECOTONE Colour Stain

Colour Code:

Name:

Application:

12.2. Anti-Graffiti Coating/Sealer for Smooth Concrete Surfaces

Brand: ecotio₂[®] by Photocatalyst Coatings

Material: Inorganic sealer for porous surfaces

Product:

- ecotio₂[®] Sealer AG+ porosity sealer that meets APAS 1441 Appendix A
- ecotio₂[®] Ultra GS for where graffiti tagging is likely to be frequent and time constraints are present for graffiti tag removal

Graffiti removal is by solvent wipe method using ECOTONE Graffiti Remover (our procedure must be followed and is available on request).

Alternative graffiti removers may be used after written approval by ECOTONE for warranty purposes.

12.3. Anti-Graffiti Coating/Sealer for Textured Concrete Surfaces

Please consult with our ECOTONE team when specifying graffiti protection over ECOTONE coated textured, blasted or acid etched concrete. The surface form and texture will be considered before offering a suitable system.