

## GUIDELINES FOR AN ARCHITECTURAL SPECIFICATION FOR CONCRETE SURFACES USING NAWTONE EMULSION STAINS

### 1. General

The specification should cover the materials, preparation and services needed for the application of a concrete colouring emulsion 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.

#### Variations:

- **NawTone** (Product code NECT90)
- **NawTone-G** (Product code NGCT90)
- **NawTone+Plus** (Product code NWRT-91)

#### 1.1. Documents referred to:

- Nawkaw SDS for NawTone, NawTone-G and NawTone+Plus
- Nawkaw SDS for Concrete Surface Cleaner (CSC)
- Nawkaw 25 Year Limited Guarantee
- Nawkaw 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:

#### **Nawkaw Australia**

**Email:** info@nawkaw.com.au

**Telephone:** 1300 629 529

**Website:** www.nawkaw.com.au

#### **Nawkaw New Zealand**

**Email:** solutions@nawkaw.co.nz

**Telephone:** 03 366 8989

**Website:** www.nawkaw.co.nz

#### 1.2. No Substitutions

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

#### 1.3. Qualifications

Nawkaw Australasia 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

Nawkaw Emulsion Colour Treatment (NawTone, NawTone-G and NawTone+Plus) is manufactured by Nawkaw. NawTone-G is a semi-gloss version of NawTone which enables sharp colours and metallic finishes. NawTone+Plus is NawTone with integral water repellent.

It is a hydrous, multiple polymer formulation of resin solids and colour pigments, which is light fast, UV resistant, penetrating, aspiratory, quick-drying and mould, fungus and mildew resistant. Once applied and cured the oxides are bonded to the surface pore structure of the cement cladding, concrete or masonry. The surface remains permeable, although at a reduced level, and will allow the substrate to breathe allowing moisture vapour and salts to migrate through the coloured surface. It is environmentally friendly, water-based and non-flammable.

Nawkaw Emulsion Colour Treatment is Low VOC with a VOC of 36g/litre. This is well under the threshold of 50g/litre in the Green Star Building Council Green Star Rating System, enabling one Green Star Credit Point for use of this product.

It is non-hazardous and non-dangerous according to criteria of NOHSC & the ADG code (ref Chemwatch MSDS 4628-67). Nawkaw Emulsion Colour Treatment is also resistant to flame propagation and ignitability and has been independently tested to AS-NZS 1530.3 - Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release

### 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 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 Nawkaw CSC is necessary. Apply Nawkaw 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.

New concrete can have its suitability checked for by conducting a surface pH check with universal indicator strips. Concrete surfaces should be a minimum of 7 days old. Precast element surfaces should not be exposed to driving rain for at least 2 hours after the application of the Nawkaw Colouring Process.

The surface cleaning agent (Nawkaw 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

Nawkaw Emulsion Colour Treatment (NawTone, NawTone-G, NawTone+Plus) is colour blended to a reference standard will be produced as recommended by the manufacturer.

It is then 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 NawTone, NawTone-G or NawTone+Plus are hand applications such as roller, pad, brush, as well as, machine applications such as misting, sponging, misting, spraying and spattering.

### 5. Environmental Requirements

Air and 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 1 hour.

### 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 or a cleaning compound which will not damage or discolour the surface.

## 7. Clean Up

At completion of staining, all excess materials, debris 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 Nawkaw Emulsion Colour Treatment (NawTone, NawTone-G) as manufactured by NAWKAW.

### 8.2. Environmental Regulations

The colouring emulsion 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. (Refer Chemwatch MSDS 4628-67). Nawkaw Emulsion Colour Treatment (NawTone, NawTone-G, NawTone+Plus) is Low VOC with a VOC of 36g/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 Nawkaw 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 precast, insitu concrete, GRC, cement cladding surfaces.

## 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. Nawkaw products can be top coated with impact and abrasion resistant clear coatings, to retain more superior resistance to weathering and improved resistance to impact and abrasion.

## 10.2. General Maintenance

The Nawkaw colour treated products require virtually no maintenance as it will inherently repel dirt and grime. An occasional hosing down with a mild surfactant 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 kept at least 500mm from the wall at all times during cleaning with a fan angle of minimum 15°C 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 Nawkaw Australia 1300 629 529 info@nawkaw.com.au or Nawkaw New Zealand 03 366 8989 Solutions@nawkaw.co.nz for advice. Please refer to Nawkaw Operations & Maintenance Manual for site specific information.

## 11. Guarantee

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

## 12. Selections

### 12.1. Nawkaw Colour Stain

#### *Choose option*

- Standard Nawkaw Colour
- Custom Colour to Match
- Custom Colour as per Individual Requirements specific to this Project

#### **Brand:**

Colour Code:

Name:

Application:

### 12.2. Anti-Graffiti Coating/Sealer

Brand:

Material:

Manufacturer:

Any anti-graffiti coating specified should incorporate the following properties:

- Water based suitable for protecting previously painted surfaces
- Graffiti management removal via solvent technique
- Pressure cleaning to be avoided