Specification for

IDEAL WORK ACID STAIN CONCRETE

PROPRIETARY DYEING SYSTEM TO TO CONCRETE / MICROTOPPING / ARCHITOP SURFACES

To be read with Preliminary/General Conditions

Types of finish	
Drawing reference	
Location/project	
Product Reference	IDEAL STAINS® and NEUTRALIZER
Manufacturer Ref.	Ideal Work S.R.L, Via Kennedy 52, 31030 Valla Di Riese PioX (TV) Italy Tel: +39 0423 4535 Website: www.idealwork.com

PROPRIETARY DYEING SYSTEM TO TO CONCRETE /MICROTOPPING /ARCHITOP SURFACES

1 FEATURES

1. Unevenness and faults in the substrate will be reflected through the Ideal Stain® treatment. Repair patches will not be hidden by the process and will take on a different colour than existing parts of the substrate as the reaction requires free lime to be present and this will vary with age and mix design of the substrate. If there is a requirement for the finished surface not to show any patches or other defects, then prior to application of the Ideal Stain® the surface should first receive a micro-cement topping of one of the Ideal Work range including Ideal Work Rasico®, Ideal Work Architop® or Ideal Work microtopping®. Ideal Work stamped concrete can also be stained once the loose antiquing release has been removed from the surface.

2. Movement Joints: All joints will remain visible after staining as Ideal Stain® is translucent, variegated, absorbed into the substrate and does not form a film or coating. Any joints should

be clean, in good condition and unlikely to peel. Ideal Stain® will not successfully stain jointing compounds or any material which is not cementitious or lime based.

3. Ideal Stain® colours Turquoise, Fern Green and Jade are only suitable for internal application as exposure to moisture can cause a reaction blackening or darkening the colours significantly. Refer to the Technical Data Sheet on www.idealwork.com for further information.
4. If the application is on to new concrete, the concrete mix design, source of raw materials and slump should stay constant from pour to pour to ensure that a minimal amount of colour variation takes place when the stains are applied.
5. If the concrete is to have a power floated finish then the finish should not be over trowelled as this will lead to the surface being too tight to allow the stains to penetrate. It will also run the risk of the surface being burnished, and give the stain a different appearance in these areas.
6. Extra caution should be taken to ensure that the surface is uniformly trowelled so that it will not be slippery. A slip-resistant flat-trowelled finish is suggested.
7. Although Ideal Stain® can be applied to existing cement/lime based substrates (concrete, pavers, stone etc…) these must first be prepared by sand/grit blasting to remove any sealers, salts, oils and other contaminants on the surface.

2 SUB-BASE PREPARATION

Surrounding areas, landscaping, and adjacent surfaces should be protected. Prior to making Ideal Stain® applications, precautions should be taken to prevent water penetration into the concrete from any source. Any localized sprinklers and/or fountains should be adjusted to avoid wetting the surface prior to application of the stain.

Before chemically staining the surface of the concrete all dirt, mould oil, plaster stains, oil, and grease must be completely removed by cleaning. Acid washing should not normally be used as a cleaning procedure as it may remove necessary reactants from the surface. Failure to remove all contaminants and coatings that impede the penetration of Ideal Stain® into the concrete will cause appearance defects. It should be noted that older or weathered concrete surfaces or areas that are frequently exposed to run-off or dripping water may have lost some of the chemicals needed to produce a reaction with the chemical stain and the reaction may be muted.

3 APPLICATION ON FLATWORK

All surfaces must be dry and properly prepared. Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from spills, flicking, over-spray, tracking, contact by application equipment and run-off. Adjoining walls of porous material such as plaster or masonry should be covered with polythene or similar non-absorbent materials.

Ideal Stain® can be applied a hand-pump sprayer full strength or diluted up to 1:4 using. This sprayer must be of professional quality and should, for best results, be equipped with a fan tip. All parts that will be in contact with the chemical stain should be made from acid-resistant plastic. The

use of an airless sprayer is not recommended.
The colour of the Ideal Stain® liquid solution will probably have no resemblance to the final colour produced on the concrete surface. The solution will appear transparent when first applied but will assume a cloudy, frothy or muddy appearance as the chemical reaction occurs. Ideal Stain® normally fizzes whilst reacting. Apply Ideal Stain uniformly with a spray-pump using a circular or figure eight motion. If fizzing does not occur then the surface has not been adequately prepared or the concrete is not sufficiently reactive to be chemically stained. Reaction time depends on wind conditions, ambient temperature, and humidity. Whether Ideal Stain® remains wet or dries on the surface, it should be allowed to remain in contact with the concrete until the desired effect is obtained, which is usually no longer than 4 hours.

For one-colour or mixed-colour applications, the chemically reacted residue need not be removed from the surface before the next Ideal Stain® application is made. When different colours are used in consecutive applications, the surface is normally washed between applications so that the colour effect can be evaluated before another colour is applied.
After the final application of Ideal Stain® has remained on the surface for up to 4 hours, all solution residues must be neutralised and then removed completely prior to sealing. A solution of Ideal Work Neutralize can be used to neutralise the residual stain. The solution should be applied until it stops fizzing. After neutralisation, the surface should be rinsed thoroughly with clean water and buffer to remove soluble salts. Run-off may stain adjacent areas or harm plants and it therefore should be collected by wet-vacuuming or absorbing with an inert material. After completion of neutralisation, rinsing, and further verification that no acid is present, the stained surface should be tested for cleanliness by wiping the surface with a white cloth. If residue appears on the cloth, additional surface cleaning must be performed. Failure to completely remove all residue, prior to sealing the surface, will cause appearance defects, adhesion loss or peeling, reduced durability, possible bonding failure and delamination of the sealer.

All chemically stained surfaces must be protected from all traffic until they are sealed.

4 VERTICAL APPLICATION

For vertical applications, it is recommended that the Ideal Work Acido Provertical® is incorporated. It is a gelling agent and thickener for acid based stains. It is used to modify the rheology of Ideal Stain® to prevent it from dripping and, in this way, make it more suitable for application by paintbrush on vertical surfaces. Incorporate 20%-40% to acid stain depending of the required thickness.

Ideal Stain® should then be applied with paintbrush or sponge taking care that application should start at the bottom and proceed upward. Excessive rundown must be avoided. A wet edge must be maintained at all times to avoid ‘tracking’ or streaks.
All chemically stained surfaces must be protected from all traffic and potential damage from passing objects until they are sealed.

5 SEALING/ PROTECTIVE COAT

The Ideal Stain® treated surface must be sealed and protected by one of Ideal Work's sealers. This choice will be determined by the use for which the stained floor is intended. If in doubt consult Ideal Work. www.idealwork.com

6 GENERAL REQUIREMENTS FOR WORKMANSHIP

Basic workmanship	Comply with the relevant clause of BS8000
Before commencement of work	The contractors must make themselves familiar with and have read the latest Technical Data Sheet for the products, available on the IDEAL WORK website www.idealwork.com
Control samples	complete sample areas, being part of the finished work, in approved locations and obtain Architect approval of appearance before proceeding: (2m² of each type). Samples to be the sole responsibility of the applicator and should be made by site operatives carrying out main works.
Uniformity of colour and texture	Once samples of coatings have been approved, do not change type or proportion of constituent materials. Ensure that supplies and batch numbers of materials are sufficient and materials. Ensure that supplies and batch numbers of materials are sufficient and consistent to give uniformity of colour. Ensure uniformity of texture during application.
Admixtures	Acid stains can be used used undiluted or diluted 1:4 and in strict accordance with manufacturers' instructions. It may be that architects/designers wish to create custom colours by mixing stains or introducing additional surface treatments. These must be use on all mock up panels and approved by the client.
Guarantee	Rendering materials and workmanship guarantees should be submitted to

	Contract Administrator prior to work commencing on site.
	It is strongly recommended that this system be applied only by Ideal Work trained applicators