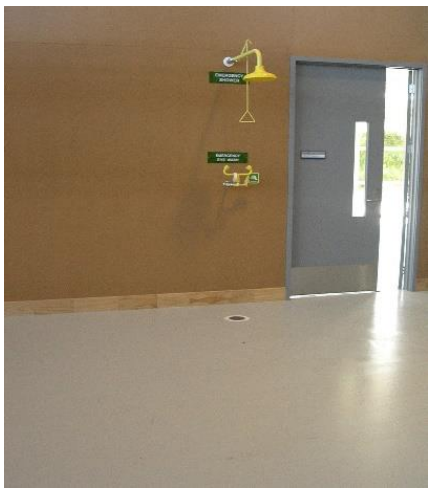
Technical Data Sheet

Aquacolour Water-based Epoxy Coating System

DESCRIPTION:
Aquacolour is a water-based two-part epoxy-acrylic gloss coating system. Aquacolour gives a smooth glossy finish with excellent wear resistance. It is a general-purpose epoxy coating designed for commercial and industrial applications both on walls and floors. Aquacolour may also be used in many other situations where protective coatings are a requirement.

TYPICAL FEATURES | BENEFITS:



- Excellent ease of use – water-based.
- Non-flammable.
- No odour for use in confined spaces.
- Non-toxic when cured.
- Long pot life
- Heat resistance – up to 70^0C
- Excellent flow and levelling properties.
- Excellent adhesion to most substrates; damp and dry.
- Very good abrasion and scuff resistance.
- Attractive Surface Finish – Semi-gloss.
- May be used on walls and floors.
- Will bond to **green / fresh** concrete when used in conjunction with Aquakem ***See cautions below***
- Easily cleaned.
- Abrasion, chemical, stain, graffiti resistant surface for wall and floor coatings.
- Will withstand cleaning with aggressive solvents to remove graffiti, etc.
- Will form a waterproof membrane. *(when used in conjunction with Aquakem)*
- Fibreglass Laminate lining system. *(Refer: separate Situclad WCS technical literature)*
- Excellent resistance to a wide variety of chemicals and petroleum products *– refer to chemical resistance chart.*
- Suitable for frequent washing with hot water and detergents.

COLOURS:
Aquacolour is available in White.
May be tinted to a range of pastel colours in the standard BS5252F, AS2700 and RAL colours *(refer: allnex Construction Products).*
The colours shown are a guide only.

AQUACOLOUR SURFACE FINISH DESIGN OPTIONS:
Aquacolour can be applied as a smooth surface or profiled non-slip *(for floors)* application.
The degree of the surface profile is determined by the non-slip requirement for the environment.
For specific advice. *Refer: allnex Construction Products.*

PERFORMANCE DATA:

Properties		Values	
Minimum Application Temperature: Air		$^{+}$10°C	
Maximum Application Relative Humidity: Air		85% *Requires good ventilation and cross air movement to aid drying*	
In-service temperatures - wet : on fully cured system		$^{-}$20 to $^{+}$70°C	
Heat resistant:		$^{+}$70°C	
Pencil Hardness		6H	
Flexibility - 6mm mandrill		Pass	
Chemical Resistance		Resistant to chemical spillage –cured 7 days at 25°c. *Refer: Chemical resistance literature.*	
Slip resistance:		R11 to R13. *Refer: Slip resistance chart*	
Hard Dry:		$^{+}$20°C ~ 75%RH	12 hours
Recoat Time:	~ Minimum ~ Maximum	$^{+}$20°C ~ 75%RH	12 hour 24 hours
Full Cure:		$^{+}$20°C ~ 70%RH	7 days
Unaffected by water:		$^{+}$20°C ~ 70%RH	>48 hours

RECOMMENDED USES:
- Ablution areas.
- Construction and Mining Industry.
- Food processing facilities.
- Refineries.
- High Performance finish coating for industrial protection on outside of chemical transport and storage tanks.
- Slip resistant floor finishes.
- Bulk retail.
- Chemical and Oil Industry.
- Pulp and Paper mills.
- Residential garages and workshops.
- Sewerage treatment plants.
- Silos.
- Warehouses.

LIMITATIONS:
- Application below $^{+}$10°C.
- Application to green (uncured) concrete. - see note below.
- Contact with water within 48 hours after application.
- Continuous immersion in strong acids, alkalis or aggressive solvents.
- Application in very cold, damp, unventilated conditions. (Use Terratuff in these conditions)
- Application to unsound substrates.
- Application to incorrectly prepared surfaces.
- Weathering | UV - Some chalking will occur in time but will maintain good film integrity.
  - Some yellowing will occur.

CHEMICAL RESISTANCE:

The following chart shows a representation of the chemical resistance of some of the colours available.
Resistant to chemical spillage –cured 7 days at 25^{0}C.
Results ~ Taken after 3 weeks exposure

Note
Variables which may under extreme conditions, influence the chemical or corrosion resistance are:

- Temperature of chemical concentration.
- Intermittent or continuous contact.
- Application in adverse conditions.
- Risks of evaporation from spillage causing concentration to rise adversely.

Test Procedure	Observation	Results
Spot Testing.	Checked for chemical attack and hardness throughout the testing period.	Taken at the time specified.

Test Media	Concentration	Aquacolour	Test Media	Concentration	Aquacolour
ACIDS			**ALKALIS**		
Hydrochloric Acid	10%	G	Caustic Soda	10%	G
Sulphuric Acid	10%	G			
Acetic Acid	10%	G	**SOLVENTS**		
Hydrogen Sulphide	All	E	MEK		F
			Xylene		G
PETROCHEMICALS			**DISINFECTANTS & CLEANERS**		
Kerosene			Detergent (DET 18)	100%	G
			Bleach (2.5% Sod Hyd Cl)		G
			MEKP – M50		G
OTHERS					
Water Resistance 25^{0}C		E	**SALT SOLUTION**		
Water Resistance 100^{0}C		G	Salt Spray ASTM B117-57T 1000 hours		G

LEGEND:

U	Unaffected (i.e. after 3-week exposure the samples have not changed)	**M**	Marked (Short term exposure, the test media will leave a mark on the sample)
A	Attacked (Short- or long-term exposure, the mechanical properties will deteriorate)	**D**	Destroy (Short- or long-term exposure, damage will occur)
E	Excellent	**G**	Good
EF	Evaluate Further	**F**	Fair

NON-SLIP:- floor definitions:

The contractor shall ensure that the surface finish in all zones is agreed with the client.
(*Samples to be supplied and agreed prior to start of the contract*)

Aquacolour Type	Description	Description	CF Rating	SRV Rating	R Rating	Non - Slip
	Installation Type	Finish Type	NZ/AS 3661.1 1993	AS/NZS 4586		Application Rates
Type A	Smooth: Roller applied -	Smooth	0.46	41	R11	
Non-Slip Class 1	Fine/Medium duty non-slip: Roller applied with the addition of:- ~ Microcells *Mixed into the Aquacolour prior to application.* *Applied in the second to last coat.*	Fine non-slip	0.54	50	R11	@100grams/4 Ltr
	~ Revtred *broadcast into the second to last coat*	Fine-Medium non-slip	0.56	51	R12	12 grams / m^2
Non-Slip Class 2	Medium duty aggregate: non-slip: Roller applied with the addition of:- ~ J61 Sand ~ Q900 *Broadcast into the wet Aquacolour coating with further coats over the aggregate Broadcast*	Fine – Silica Sand Fine – medium garnet	0.63 0.73	57 64	R12 R13	1.0 kg / m^2

SUBSTRATE: – Preparation
All substrates shall be stable and solid.

Note
All control joints junction cracks in the substrate etc. are to be properly treated.

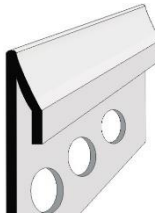
CONCRETE:
Shall have a surface which has been mechanically trowelled to AS3610:1995 U3/NZ/3114:1987U3 finish.
A minimum compressive strength of 25MPa at 28 days cure.
This system may be applied to damp concrete and concrete that is greater than 7 days old, when used in conjunction with Aquakem. (Refer: Aquaduo Technical Literature)

However; it is preferable to allow as long as possible for the concrete to cure and dry.
E.g. allow 28 days cure time after the placement of the concrete.

Concrete Block:
Concrete Block must be installed to the manufactures specifications and comply with current building codes.

PLYWOOD | TIMBER | FIBRECEMENT
Refer: Aquacolour Specification

COVE TOPS:
Install allnex cove upper termination metal strips: **5.2mm or 9.2mm rebated strip**.(*Refer: Typical Resin Flooring Details Document*)


Cove Strip 5.2mm


Cove Strip Rebated 9.2mm

If the coving strip cannot be used refer to the Resin Flooring Details Document for options.

RESIN FLOORING DETAILS
Refer: Typical Resin Flooring Details Document

FALLS TO WASTES:
STZ prefill system (for adding falls, slope modification and floor angles).
Types: *Refer: STZ Prefill Technical Literature.*
The falls must be specified pre-tender. (*Aquacolour is thin film coatings system and prefill may involve significant extra materials).*
The quantities of materials required to raise the floor height at wall perimeters is often underestimated.
To do this may involve significant extra costs and should be discussed and agreed.
It is a very common for STZ prefill system to be used under Aquacolour to create falls to drains and other filling applications.
Normally for new work falls are laid in the concrete and fall to drains.
However; in refurbishment situations the drains and falls are incorrect. Sometimes new drains are installed.
The Prefill can be installed to any thickness to create falls.
If the project is a food processing facility, ensure that your requirements fall within the guidelines of current legislation.

Floor Fall Definitions	
1:50	Liquids will free run to drainage
1:80	Liquids will migrate to drainage
1:100	Some ponding of liquids will occur, squeegee to drainage will be required.

JOINTS:
All concrete control and construction joints should be carried through the Aquacolour.

Jointing Options	
Control | Construction Joints	Cold Joints | Non-Movement Joints
allnex K130 or allnex Sabreseal SMP60	allnex K130 or allnex Sabreseal SMP60

QUALITY ASSURANCE:

The allnex approved Applicator shall ensure all QA checks have been undertaken prior to the installation process and subsequently during the installation process. The completed documentation must be made available to allnex and the client/clients authorised personnel. The product is to be installed within the required control range to ensure a fully cured hard wearing monolithic floor coating system.

Information to be recorded daily is:

- Concrete sub-base or prefill mix.
- Sequence of mixing, ratios and quantities and formula.
- Ambient temperature | Ambient relative humidity.
- Material batch numbers used.
- Substrate moisture content & Substrate temperature.
- Daily detail of licenced contractors on-site.

CLEANING & MAINTENANCE:

Cleaning:

Refer: Cleaning Maintenance Document

Repairs:

Can be undertaken with further new Aquacolour applied directly following mechanical abrasion..

Resurfacing:

allnex recommend ***two*** (2) options:

Smooth System

- Re-surfacing with further coats of Aquacolour.

Profiled | Non-Slip System

- A second option is Aquacolour Non-Slip which will reinstate the non-slip properties or add non-slip to a previously smooth surface finish.

FIXING OF PLANT AND MACHINERY:

Mechanical fixings into the substrate must be resin fixed. This is to ensure that there is no water migration into the substrate. Conventional expanding plugs, screws or anchors are not an acceptable fixing method.

HEALTH & SAFETY: Refer safety data sheets (SDS).

- Avoid skin contact.
- If spraying wear a suitable respirator.
- Wear safety equipment.

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Replaces: Dec 2020

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