

Technical Data Sheet

Aquaclear Aliphatic Polyurethane Coating System



DESCRIPTION:

Aquaclear polyurethane is a pure aliphatic water-borne urethane polymer (not acrylic modified) suitable for floor coating. It is non-yellowing.

Aquaclear is based on a pure urethane emulsion and gives a soft gloss clear finish with excellent wear resistance.

Aquaclear may also be used in many situations where protective coatings are a requirement including concrete and timber.

TYPICAL FEATURES | BENEFITS:

- Water-based.
- Non-flammable.
- Excellent ease of use - single component.
- Excellent flow and adhesion properties.
- Easily cleaned.
- Very good abrasion and scuff resistance.
- Tough resilient material, resistant to high-heel marks, won't crack.
- Fast dry and easy to apply - Two or three coats can be applied per day compared to one per day with solvent systems.
- Modern mid sheen finish. Highlights the features of wooden floors. There is less floor darkening than with solvent products. Satin made to order.
- Non-toxic.
- Interior use.
- Attractive Surface Finish – soft gloss.
- Good water and wear resistance once cured.
- Suitable for frequent cleaning.
- Non-yellowing - Aliphatic Polyurethane.

PERFORMANCE DATA:

Properties	Values
Minimum Application Temperature: Air	+10°C
Maximum Application Relative Humidity: Air	85%
In-service temperatures - wet : on fully cured system	-10 to +40°C
Heat resistant:	+40°C
Slip resistance:	R11 to R13. Refer: Slip resistance chart
Pot-Life:	+20°C ~ 75%RH 3 hours (once poured into an application vessel)
Touch Dry:	+20°C ~ 75%RH 1 hour
Hard Dry:	+20°C ~ 75%RH 72 hours
Recoat Time ~ Minimum ~ Maximum	+20°C ~ 75%RH 1 hour 36 hours
Full Cure:	+20°C ~ 70%RH Full Cure: 7 days at 20°C
Unaffected by water:	+20°C ~ 70%RH >48 hours
Solid Content:	35%
Thinning:	Not Recommended
Clean Up:	Warm soapy water before product dries
Dangerous Good Class:	NA
Packaging:	4 litre Plastic Pail 20 litre plastic Pail
Shelf life:	12 months from date of manufacture (After this time consult with allnex Construction Products)

RECOMMENDED USES:

- Particle board.
- Cork and coloured cork.
- Plywood walls.
- Concrete.
- Timber flooring; most types.
- Parquet.
- Particle board.

LIMITATIONS:

- Application below +10°C.
- Application to green (uncured) concrete. Allow 28 days.
- Contact with water within 36 hours after application.
- Application in very cold, damp, unventilated conditions.
- Application to unsound substrates.
- Application to incorrectly prepared surfaces.

NON-SLIP:- floor definitions:

Typical co-efficient of friction "wet" NZS/AS3661.1:1993:

(Samples to be supplied and agreed prior to start of the contract)

Aquaclear 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 <i>Mixed into the Aquaclear prior to application. Applied in the second to last coat.</i>	Fine non-slip	0.54	50	R11	@100grams/4 Ltr
	~ Revtred <i>broadcast into the second to last coat</i>	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 <i>Broadcast into the wet Aquaclear coating with further coats over the aggregate Broadcast</i>	Fine – Silica Sand Fine – medium garnet	0.63 0.73	57 64	R12 R13	2.0 kg (or less) / 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.

A minimum of 28 days prior to the installation of Aquaclear.

The moisture content shall be less than 75% RH.

Plywood | Fibre-cement**Plywood Sheet:**

Element	Value
Framing:	All framing must comply with current legislation. <i>Framing must take into consideration all loading parameters.</i>
Plywood:	Must Comply with AS/NZS2269.
Plywood Type:	H3.2 treated CCA (water-based treatment) with a square edge.
Plywood Thickness:	Floors: 17mm – Minimum. Walls : 12mm – Minimum.
Plywood Installation:	Loose butted.
Plywood Fastening Type:	Corrosion resistant screws - preferably 50mm stainless screws.
Fastening Spacings:	Perimeter: 150mm. Centres: 200mm.
Countersink Fastening:	All fastenings must be countersunk 0.5mm. <i>Fill with allnex Fairing Cream.</i>
Plywood Sheet Joints:	All joints must be left with a uniform finish.
Surface Preparation:	Mechanically sand all areas with 120 grit paper.

Fibre Cement Sheet

Element	Value
Framing:	All framing must comply with current legislation Framing must take into consideration all loading parameters.
Fibre Cement:	Must Comply with AS/NZS2269
Fibre Cement Type:	With rebated edges that can be stopped to flush the joints.
Fibre Cement Thickness:	Floors: 18mm - Minimum Walls : 9mm – Minimum
Fibre Cement Fastening Type:	316 Stainless Screws - 50mm x 10g
Fastening Spacings:	Perimeter: As per manufacturer's instructions Centres: As per manufacturer's instructions.
Countersink Fastening:	All fastenings must be countersunk as per Manufacturer's instructions. Fill as per the Manufacturer's instructions.
Fibre Cement Sheet Joints:	All joints must be left with a uniform finish.
Fibre Cement Sheet Joints: - Flushing	All joints must be flushed in accordance with the Manufacturer's instructions.

Note

In all cases:- Refer to the Manufacturer's installation instructions.

Timber:

Ensure fixings are below the surface, filled and sanded.

CAUTION:

- Do not return unused product to container as this may cause gelling of the product in the container.
- Do not flood coat.
- Requires good ventilation and cross air movement to aid drying.

SURFACE PREPARATION:

Ensure that all dust is removed and that the surface is free from oils, fats etc. It may be applied over old moisture cured polyurethanes providing cleaning and sanding has occurred.

Caution

Do not solvent wipe.

Note

The product will have difficulty "wetting out" (i.e. laying out flat) if oils, greases etc are present.

Concrete:

Prepare concrete by mechanical abrasion method to: - **CSP2**. (Concrete Surface Profile Scale - International Concrete Repair Institute)

See technical literature: Surface Preparation

Remove all concrete curing agents, contaminants and any other material likely to affect the adhesion of the Aquaclear.

Timber:

Fill screw holes with appropriate filler to match colour of timber.

Sanding Procedure as follows:-

Stage	New Timber Floors	Old Timber Floors
1 st	40 or 60 grit	
2 nd	60 or 80 grit	
3 rd	80 or 100 grit	80 or 100 grit
Fine Cut	100 or 120 grit	100 or 120 grit
Finish	Screen Back 120 grit	Screen Back 120 grit

Note

Do not burnish (close the grain) when undertaking preparation or delamination will occur.

AQUACLEAR COVERAGE :

Coverage	4 litre unit - Coverage	20 litre unit - Coverage
Unit Coverage @10m ² / litre /coat		
~ 3 x coats	13.33m ²	66.66m ²
~ 4 x coats	10m ²	50m ²
~ 5 x coats	8m ²	40m ²

MIXING OF MATERIAL

Stir the product before use. However, **stir slowly** so as **not** to incorporate air.

APPLICATION METHOD:

Roller | Brush | Spreader | Conventional Spray | Airless Spray

Apply by chosen method ensuring a wet edge is kept throughout the entire application process.

Apply thin even coats.

Allow gentle cross ventilation which allows the migration of fumes and the support of the drying process.

Subsequent coats can be applied as soon as the surface is dry and can be walked upon. After the first coat, ensure that the water has dried from the timber before recoating.

In good conditions, three or four coats may be applied in a day.

Do not allow dust etc. to blow onto the wet surface.

Sand, disc off the surface between coats in some applications, e.g. timber.

Note

It is best to apply multiple thin coats, rather than heavy coats.

STABILITY

The product has a tendency to form hard non re- dispersible film on pail lids, sides and rims **IF** the lid is not completely re-secured. It is highly recommended that the pails are not worked from but that sufficient material is transferred to a roller tray etc, and the pail resealed. Also, keep the pail out of direct sunlight and store in cool, interior conditions.

SUBSEQUENT RECOATING:

This product may be refinished at any stage. Clean the floor surface, dry and then sand .

Do not solvent wipe.

Two coats are generally necessary.

The same treatment is necessary if it is required to re-coat old moisture cured polyurethane floors.

REPAIRS:

Chemically clean.

Mechanically abrade surface.

Apply a further two (2) coats of Aquaclear.

CLEANING:

Smooth Surface:

Conventional floor cleaning procedures are normally adequate to maintain clean and hygienic surface.

Non-slip Surface:

Mopping may **not** adequately remove dirt and grime from the surface profile of the Aquaclear. We therefore recommend the use of a soft bristled broom in conjunction with the cleaning solution.

Note

Ensure all detergent materials, dirt etc. is thoroughly rinsed from the surface following cleaning.

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

- Wear gloves and suitable skin protection.
- Wear appropriate eye protection.

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Allnex Construction products, a Division of Allnex New Zealand Ltd

Auckland - 14 Industry Road, Penrose, phone: 09-583-6544.

Hamilton - 18 Somerset Street, Frankton, phone: 07-847-8658.

Wellington - Unit 9A, 4 Glover Street, Ngauranga Gorge, phone: 04-240-0305.

Christchurch - 112 Carlyle Street, Sydenham, phone: 03-366-6802.

Customer Service: 0508-882-288 cs.constructionnz@allnex.com

www.allnexconstruction.com



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