Aquadec

Details

A tough, highly flexible 100% waterproof, slip resistant finish, ideal for balconies and car parks

Aquadec is a three stage system comprising of a first coat Aquadec DPM, then a coat of Aquadec Base to build up the thickness and finish it with a coat of the Aquadec Sealer.

Stage 1: *Aquadec DPM* – This layer is a fast drying, non-toxic, non-taint primer. The product, being single pack, is extremely easy to use and it will easily bridge small cracks. (Please note however, that this will obviously depend the condition of the substrate and the cause of the crack – please refer to Application Sheet for further details). Aquadec will adhere to almost any surface, with excellent adhesion, even if its damp and it's fast curing formulation means that the primer is touch dry within approximately 1 hour.

Stage 2: *Aquadec Base* – A polymer/cement based product designed to be applied over a wide range of surfaces to provide a durable surface strongly bonded to the substrate with a degree of flexibility to enable the accommodation of movement in the substrate and structure of the building. Aquatic Base will naturally provide a slip resistant surface.

Stage 3: *Aquadec Sealer* – This is the final roller applied sealer that provides whatever colour you choose to further enhance the decorative and functional properties of the surface.

Through continued research and listening to customer feedback, Polycote UK has created a 100% waterproofing system that will be the cure to many long standing waterproofing problems, such as balconies, walkways and car park decks as well as basements. Good substrate protection will also be achieved.

Aquadec is ideal for:

- Waterproofing balconies – tiled, asphalt, concrete
- Creating a watertight floor covering around swimming pools
- Sealing the surface under tiles
- Tanking of bathrooms/ wetrooms
- Preventing the buildup of damp in basements
- Can be applied to plasterboard, plywood, brick, concrete, asphalt and fiberglass.

Specifications

Number of parts: 3
Application temperature: 5°C to 25°C
Pot life of Aquadec Base @ 20°C: Approximately 2 hours, curing time: 4 - 6 hours
Pot life of Aquadec Sealer @ 20°C: Approximately 50 minutes, curing time: 12-14 hours,
Coverage: Packs designed to cover 9sq.m., 18sq.m. or 36sq.m.

	Pedestrian	Vehicular
Stage 1 - DPM	2 coats	2 coats
Stage 2 - Base	1 coat	2 coats
Stage 3 - Sealer	1 coat	2 coats

For more information of the above stages, please refer to:-

- *Aquadec DPM* **(Stage 1)** on page 2-3
- *Aquadec Base* **(Stage 2)** on page 4-5
- *Aqadec Sealer* **(Stage 3)** on page 6-7

Aquadec DPM (Stage 1)

Aquadec DPM

Liquid membrane waterproofing system for floors and walls

Product Description

Aquadec DPM is a single pack liquid membrane waterproofing system based on styrene butadiene, having outstanding flexibility and elasticity with excellent resistance to water pressure, water vapour permeability, abrasion and UV light. With an ability to withstand carbon dioxide resistance @ 100 metres of still air (0.6mm DFT) Aquadec is ideal for anti-corrosion coatings.

Typical Uses

Aquadec DPM is a versatile product and may be applied to both floor and wall surfaces for a variety of purposes, either alone or as part of a multi-layer system and has superb bonding characteristics. Used as a waterproof membrane under many different flooring systems, from self-smoothing screed to ceramic tiling, Aquadec is therefore ideal for the lining / tanking both floors and walls to waterproofing basements, swimming pools, wet rooms, and showers.

Suitable substrates: *Aquadec DPM* may be applied to brick, block, concrete, render, stone & timber.

Packaging & Colour: *Aquadec DPM* is available in 5L and 20L units and is supplied in white.

Direction For Use

Surface Preparation

The substrate must be sound, clean and free of loose or friable materials, dust, chalk, oil and grease contamination, mould or algae. All surfaces should be smooth with a trowelled or brushed finish, and brickwork should be flush pointed. *Aquadec DPM* may be applied to damp surfaces but any surface water must be removed.

Appearance

The colour of the liquid compound will differ slightly from the colour of the dried membrane. The colour shade may vary from batch to batch.

Priming

If applying to steel in damp or corrosive environments, a corrosion inhibitive primer should be applied before application of the membrane.

Application

Aquadec DPM is a very easy to use, single pack product and simply requires thorough stirring before use. However, please note that we do not recommend applying the product in temperatures below 5°C. Furthermore, the coating must be kept dry until the product has fully cured.

Applications Conditions

The application temperature must be above +7°C. The curing time will be greatly extended at low temperatures. Do not apply if the coating is likely to be subjected to rainfall before it has dried.

Brush / Roller

Apply to recommended dry film thickness by a minimum of two coats, re-coating at right angles, when the previous coat is touch dry, normally after one hour, and in any case not exceeding 24 hours to ensure a good intercoat bond.

The second coat should be applied at right angles (cross-rolled) within 24 hours of the first coat. After both coats have been applied, the membrane should be left at least 4 days before subjecting to water or attempting any ponding tests.

Airless spray

The recommended 0.6mm dry film thickness may be achieved in a single application.

Expansion Joints

When applying over expansion joints, it is advised that the expansion joint be brought through the Aquadec coating and sealed off with a suitable joint sealant. Depending upon the circumstances, Polycote *Jointex SP* is an excellent product for this purpose. It must be appreciated that should the Aquadec be applied over such a joint, that the joint may well expand and contract over and above the ability of the Aquadec and cause the coating to crack. For your interest and in many cases this does not normally cause a water ingress problem due to the joint itself being sealed and will only be an issue aesthetically.

Application(cont)

Cracking

If the substrate cracks, or when bridging existing cracks, it should be noted that Aquadec Base Coat, although flexible, does not allow for expansion and may crack. This cracking is largely cosmetic and should not affect performance.

Aquadec DPM is highly elastic and will allow for minor hairline cracking, provided it is applied at sufficient thickness. For this reason, two coats of *Aquadec DPM* are recommended, particularly on porous substrates. Adequate film build is required to allow for expansion and to absorb stresses.

Where existing cracks are present, it is advised that they are filled prior to application of the Aquadec System. Responsibility for identifying the cause of cracking remains with the purchaser.

1. Drying out / stable cracks. These are where the substrate is stable and are not subjected to further movement, we advise Polycote Internal Crackfiller. This is a 100% solids ultra low viscosity resin that will fill and solidify the crack.
2. Expansion/Contraction cracks. Cracks subject to movement must be filled with a flexible jointing material. Rigid fillers will cause the crack to reappear or form elsewhere. For suitable solutions, refer to the Polycote Jointex Range.

Pot Life & Curing Time

At 20°C with 50% relative humidity, *Aquadec DPM* will be touch dry in 1-2 hours, rain resistant after approximately 3 hours, re-coatable after 24 hours and fully cured in approximately 14 days. However, please note that these times will vary, depending on actual site conditions, application temperature, moisture content of the substrate and relative humidity.

Coverage

Coverage may vary depending on the application and substrate condition.

To achieve a vapour barrier, a minimum dry film thickness (DFT) of 0.6mm is required. This must be applied in a minimum of two coats, each at 0.3mm DFT, to comply with CP102:1973 - Code of Practice for protection of buildings against water from the ground.

To achieve a final 0.6mm DFT, approximately 1.1 litres per sqm of material is required. On porous substrates, additional material may be needed to achieve the required film build.

The product is supplied in standard pack sizes covering 10sqm, 20sqm and 40sqm. It is essential that the product is applied evenly and at the correct spread rates to ensure sufficient dry film thickness to accommodate surface stresses and expansion or contraction.

Profiled surfaces significantly increase surface area and will require additional DPM material. Likewise, porous substrates can draw material into the surface, reducing surface build. Although the second coat will largely address this, extra material may still be required. Exact quantities cannot be specified, as conditions vary from site to site. Guidance can be given, but it remains the responsibility of the user to assess requirements.

When coating large areas, note that substrate porosity can vary between concrete pours, meaning some areas may require more material than others.

Technical Data

Form:	Viscous liquid
Density:	1.10 – 1.15 g/cm3 at 20˚C
Dry Film Thickness (DFT):	300 microns/coat, 600 microns/0.6mm per 2 coats
Elongation breakpoint:	350%
Viscosity:	3500cP at 25˚C Spindle 4 Brookfield DV2T
pH:	8.5 – 10.0
Solubility:	Soluble in water Insoluble in organic hydrocarbon solvents
Odour:	Slight

Cleaning

Tools and equipment should be cleaned whilst product is still wet, using warm soapy water. Hands and skin should be cleaned immediately with Organic Hand Cleaner.

Shelf Life & Storage

Shelf life of *Aquadec DPM* is 12-months if kept in the original, unopened container in a cool, dry, frost-free environment, not in direct sunlight, between 5°C and 35°C.

Health & Safety

Before using this product, please ensure you have received and read carefully both the Hazard Label applied to the container and the relevant Material Safety Data Sheets.

Any Questions

Please do not hesitate to contact us for advice regarding the use of this product or its suitability for your particular application.

Our aim is to provide all the technical help you need to make an informed choice and achieve total success.

Polycote Technical Helpline: **01234 846400**

Aquadec Base (Stage 2)

Aquadec Base

An incredibly tough, highly flexible 100% waterproof system

Product Description

The *Aquadec Base* is a decorative, twin pack cementitious coating available in two grades; Pedestrian or Vehicular. A polymer/cement based product designed to be applied over a wide range of surfaces to provide a durable surface strongly bonded to the substrate with a degree of flexibility to enable the accommodation of movement in the substrate and structure of the building. Aquadec Base will naturally provide a slip resistant surface.

Typical Uses

Aquadec is ideal an ideal solution to many long standing waterproofing problems, such as balconies, walkways, car park decks, basements, abattoirs, silage clamps, grain stores, dairies, piggeries, changing rooms and footpaths.

Suitable substrates: *Aquadec* may be applied to tiles, asphalt, concrete, plasterboard, plaster, plywood, brick, glass, rubber, steel, lead, asbestos, tarmac, floor screeds.

Packaging: *Aquadec Base* is supplied as twin pack. Available in two grades - Pedestrian or Vehicular - and in pack sizes that will cover either 9 sq.m., 18 sq.m. or 36 sq.m.

Direction For Use

Surface Preparation

The substrate must be sound, clean and free of loose or friable materials, dust, chalk, oil and grease contamination, mould or algae. Remove any oil or grease using Polycote *Degrease IT*.

Any damaged areas should be repaired and primed – please contact the Polycote Technical Helpline for further advice.

New concrete should be at least 4 weeks old and the weak dusty laitance should be removed using Polycote *Etch IT*.

Priming

If applying to steel in damp or corrosive environments, a corrosion inhibitive primer should be applied before application of the membrane.

Mixing

The ideal mixing tool is a slow speed drill fitted with a multi action mixing paddle. Suitable mixing paddles can be purchased from Polycote.

The unit of material supplied is based on the standard mix of 4.7 litres of liquid to 12.5kgs of filler but it should be noted the ratio of liquid to filler can be adjusted to suit individual applications in terms of surface, usage and prevailing temperature.

The liquid should be pre-stirred vigorously prior to measuring out the required quantity and adding the appropriate amount of filler. Pour the liquid into a clean open mixing vessel and always add the filler into the liquid slowly, continually mixing until all the filler to be used is added. Continue mixing for a further 2 to 3 minutes ensuring there are no lumps in the mix. The final consistency should be similar to that of a thick cream.

Application

Before application of *Aquadec Base* to horizontal or vertical surfaces, ensure that surfaces are sound, clean and free of loose or friable materials, dust, chalk, oil and grease contamination, mould or algae.

Please note: by following this procedure and prior to applying succeeding coats the same procedure will aid the spread of the material.

CAUTION: Do not apply *Aquadec* on hot surfaces or at times of very strong sunlight and high temperatures as this could accelerate the drying of mixed concrete and produce a very rapid cure of the applied material.

Aquadec Base is extremely simple to apply. Apply by brush, roller, trowel or squeegee.

From the mixing vessel pour out a quantity of material that can be easily and uniformly spread using the selected tool over the appropriate area and finish to the desired texture before moving on to the next part of the mix. Repeat the mixing and application method until the selected area has been completed.

The Pedestrian grade will require 1 coat, whereas the Vehicular grade requires 2 coats. The second coat can be applied once the first coat has dried.

Application(cont)

Application Conditions

The recommended application temperature is between 10°C and 30°C. Do not apply if the temperature is likely to fall below 5°C or if there is a risk of rainfall prior to full curing being achieved, as this may result in a non-cure situation.

Pot Life & Curing Times

The pot life of *Aquadec Base* once mixed is approximately 60 minutes at 20°C & it is essential to use all mixed product within this time frame. The curing time is within 4-6 hours, dependent on atmospheric conditions.

Cure Times

Minimum recoating interval:	4 to 6 hours
Light Traffic:	12 to 16 hours
Full Traffic:	72 hours
Full Chemical Cure:	7 to 10 days

Typical Consumption (Theoretical)

1.0 - 5.0 kg/m^2.
The coverage rate will vary depending on the texture and porosity of the substrate, site conditions, film thickness and method of application.

Coverage

The complete pack sizes are designed to cover either 9 sq.m., 18 sq.m. or 36 sq.m.

Cleaning

Tools and equipment should be cleaned whilst product is still wet, using warm soapy water. Hands and skin should be cleaned immediately with Organic Hand Cleaner.

Shelf Life & Storage

Shelf life in unopened containers is approximately 12 months for the liquid and 6 months for the powder, subject to good conditions of storage.

Store in a cool, dry, frost-free environment away from sources of ignition, at a temperature not below 15°C.

Technical Data

Pack Weights:	4.7 kg liquid/12.5 kg filler
Mixed Density:	1.89 g/cm^3
Volume Solids:	62%
VOC:	<5 g/l
Cleanser/Thinner:	Use water to clean. Thinning is not advised.

Health & Safety

Before using this product, please ensure you have received and read carefully both the Hazard Label applied to the container and the relevant Material Safety Data Sheets.

Any Questions

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Aquadec Sealer

A twin pack, highly effective pigmented sealer with a matt finish available in buff, grey, white, terracotta, green and black.

Product Description

Aquadec Sealer is the final, roller-applied sealer, formulated to provide a hard-wearing, matt, fully impervious finish without a high-gloss appearance. Based on an aliphatic, solvent-based, UV-resistant polyurethane, it adheres strongly to a wide range of wall and floor substrates, reducing surface porosity and delivering a durable, dustproof finish. The coating offers excellent resistance to UV exposure, impact, abrasion, hot water and a wide range of chemicals, while remaining easy to clean and maintain.

Typical Uses

Aquadec Sealer is ideal for treatment of dusting concrete floors in factories, warehouses, garages, workshops, pharmaceutical, production and plant areas.

Suitable substrates:	*Aquadec Sealer* is designed for application onto epoxy resin based screeds to reduce surface absorbency and ensure ease of cleaning in hygienic locations. *Aquadec Sealer* can also be applied onto walls as a clear, durable seal coating.
Colour:	Buff, grey, white, terracotta, green and black.
Packaging:	*Aquadec Sealer* is supplied in 1.7 kg units.

Direction For Use

Surface Preparation

Surfaces to be coated must be clean, dry and free of loose contaminants. Lightly abread the surface to provide a key. The concrete substrate must be sound with a minimum compressive strength of 25 N/mm^2, a minimum pull-off strength of 1.5 N/mm^2 and should be a minimum of 28 days old. Concrete substrates should be mechanically prepared using a vacuum assisted shotblasting or diamond grinder, to remove any weak surface laitance and/or previous surface treatments. Weak or damaged concrete should be removed and repaired using a relevant Polycote repair material. If unsure of the best option, please ask.

The ideal air temperature at the time of application is 15°C to 25°C, with a maximum relative humidity (RH) level of 75%. Ensure good drying conditions are likely throughout the application and curing process, before the coating is subjected to water or rainfall.

Mixing

Having fully prepared the substrate, stir the individual components before mixing together.

Add Part 'B' to Part 'A' and thoroughly mix for at least 3 minutes. For best results use a heavy duty slow speed drill with a mixing paddle.

Care must be taken when mixing to ensure that the hardener is properly dispersed.

Ensure thorough mixing as an unmixed product will result in a poor or non-cure situation.

Application

Aquadec Sealer can be applied by brush or roller at a thickness of 40 microns. Use a short nap ling-free mohair roller. The Pedestrian grade will require 1 coat, whereas the Vehicular grade requires 2 coats.

It is recommended that at least two people are involved in the application process. The second person rolls the sealer at 90 degrees to the first. The roller must be saturated with material so that work is always carried out wet-on-wet. Change rollers every 30 minutes. Ensure that material is not applied more than once or overlapped in any area.

Application Temperature

Normal application temperature is between 15°C and 25°C. Surface temperature must be above 5°C. Where possible it is recommended that the application area is heated to a minimum temperature of 15°C for 24 hours prior to application to allow the ambient and substrate temperature to stabilise prior to installation.

The maximum relative humidity should be 75%.

Coverage

The coverage will vary according to the texture and porosity of the substrate and the film thickness required. As a guide, the coverage is 6-10m^2 per kg, per coat

Pot Life & Curing Times

The pot life is approximately 40 minutes. Curing time is dependent on temperature and humidity. Initial curing for light foot traffic is 12 hours.

If a second coat is required, it must be applied between 16 and 36 hours of the first to ensure a good chemical bond. If this interval is exceeded, abrade the first coat to ensure intercoat adhesion. Full traffic time is 48 hours. Full chemical resistance in 7 days.

Curing Schedule at 20°C

Pot Life:	40 minutes
Pedestrian Traffic:	12 hours
Light Wheeled Traffic:	24 hours
Full Traffic:	48 hours
Full Cure:	7 days

Please note: At lower temperatures the above cure times will be increased

Technical data after 28 Days at 20°C

Compressive Strength:	N/A
Tensile Strength:	N/A
Bond Strength:	> 2.0 N/mm2 (Concrete Failure)
Abrasion Resistance:	N/A
Slip Resistance Pendulum Test to BS7976-2:	Consult Polycote
VOC:	20g/l - Based on a fully mixed unit
Chemical Resistance:	Good general chemical resistance. For specific reagents contact Polycote Technical Department

Cleaning

Tools and equipment should be cleaned whilst resin is still wet with clean water. Reacted material can only be cleaned mechanically. Clean all equipment immediately after use of the twin pack sealer with the aid of Polycote Solvent Cleaner.

Hands and skin should be cleaned immediately with Organic Hand Cleaner.

Shelf Life & Storage

Shelf life in unopened containers is approximately 12 months subject to conditions of storage.

Store in a cool, dry, frost-free environment at temperatures between 10°C and 25°C and away from sources of ignition and out of direct sunlight.

Health & Safety

Before using this product, please ensure you have received and read carefully both the Hazard Label applied to the container and the relevant Material Safety Data Sheets.

Any Questions

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