

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. Aquadec 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.

Number of base coats: Pedestrian grade: 1 coat

Vehicular grade: 2 coats

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

- Aquadec DPM (**Stage 1**) on page 2-4
- Aquadec Base (**Stage 2**) on page 5-6
- Aquadec Sealer (**Stage 3**) on page 7-8

Aquadec DPM

Product Description

Liquid membrane waterproofing system for floors and walls

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.

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.

Product Data

Form:	Viscous liquid
Density:	1.10 – 1.15 g/cm ³ at 20°C
Dry Film Thickness (DFT)	30 microns/coat (2 coats = 0.6mm)
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

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.

Direction For Use

Surface Preparation

THOROUGH SUBSTRATE PREPARATION IS ESSENTIAL.

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..

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.

Application (cont)

Brush / Roller (cont.)

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.

Cracking

If the substrate cracks, or when bridging over existing cracks, it is important to note that the Aquadec Base Coat, whilst flexible, does not allow for such expansion and will crack. However, the Aquadec DPM is a very elastic and will allow for minor hairline cracking **PROVIDED THAT** it has been applied at a thickness sufficient for the said movement. This is why two coats of Aquadec DPM are advised, especially where the existing substrate is porous. It must be realised that the surface build of the Aquadec DPM needs to be of sufficient thickness to allow for expansion and to be able to take up the stresses it is subjected to. With regard to the Aquadec Base Coat, again, surface cracking should not be any great detriment to the product other than from an aesthetic perspective.

Should you have existing cracks, it is advised to fill the cracks prior to the application of the Aquadec System. We are happy to give a couple of options to achieve this but it must be responsibility of the purchaser to establish the cause of the cracking.

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 subjected to movement should always be filled with a jointing material capable of expansion and contraction. To fill with a product that hardens and does **NOT** allow for such movement will only cause the crack to either reappear in the same place or indeed cause the substrate to crack elsewhere. Bearing that in mind, it is advisable to view the Polycote Jointex Range to find the best solution for your needs.

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.

Curing Times

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

The coverage may be varied as appropriate to the application.

To achieve a vapour barrier, a minimum dry film thickness of 0.6mm is necessary. This should be applied in a minimum of 2 coats at a rate of 0.3mm dry film thickness per coat) in order to comply with CP102: 1973, Code of Practice, for protection of buildings against water from the ground.

To yield a final 0.6mm DFT, a total 1.1 litres/m² of material is required. Note: If the substrate is particularly porous, this may therefore require extra material to achieve 0.6mm DFT.

Coverage (cont)

The product is sold in standard pack sizes to cover 10sq.m, 20sq.m, and 40sq.m. It is of course vitally important to ensure the product is applied evenly and at the correct spread rates in order to achieve a sufficient dry film thickness to cope with surface tensions, stresses and any such expansion and contraction issues.

If the surface is profiled, this can dramatically increase the surface area to be coated and you will require extra DPM material to allow for this larger surface area. Equally should the surface be porous, the DPM will be drawn down into the substrate and the resultant surface build may well be insufficient to cater for expansion cracking. Whilst the second DPM coat will mostly cater for this, extra material may well be required to achieve the surface build necessary. Unfortunately, we cannot say exactly how much will be required as every situation is different. Advice will certainly be given, but it is the responsibility of the user to discern the individual need(s).

As a final point of consideration, please also note that when applying to large areas, the porosity can differ with each pour of concrete, so whereas one area can be good and solid, another area can be completely different and very poor!

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

All reasonable care has been taken in supplying the above information. However, any figures quoted do not constitute a specification but represent typical values obtained. It is the customer's responsibility to ensure the product is fit for the intended purpose and that conditions are suitable. Any technical advice is offered in good faith, but without warranty. This is also applicable when proprietary rights and third parties are involved. In the light of the Company's policy of continual research and development, it is the customer's responsibility to ensure that the information contained herein has not been superseded.

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.

Available Colours

Grey.

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.

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

Direction For Use

Surface Preparation

THOROUGH SUBSTRATE PREPARATION IS ESSENTIAL.

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 (e.g. the plastic container used to supply the unit) 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.

Application (cont)

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 one coat, whereas the Vehicular grade requires two coats. The second coat can be applied once the first coat has dried.

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/m².

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

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 Sealer

Product Description

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

Aquadec Sealer has been created to provide a totally impervious hard wearing floor sealer without the glossy shine. The aliphatic solvent-based UV resistant polyurethane formulation will adhere to a wide range of substrates including walls and floors and will reduce porosity whilst providing a dustproof surface. The coating is not only UV light resistant but is also extremely easy to clean. Impact and abrasive resistance clear surface sealer. Resistant to hot water. Good chemical resistance.

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.

Packaging

Aquadec Sealer is supplied in 1.7 kg units.

Typical Uses

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

Direction For Use

Surface Preparation

THOROUGH SUBSTRATE PREPARATION IS ESSENTIAL.

Surfaces to be coated must be clean, dry and free of loose contaminants. Lightly abrade the surface to provide a key. The concrete substrate must be sound with a minimum compressive strength of 25 N/mm², a minimum pull-off strength of 1.5 N/mm² 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.

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 6-10m2 per kg, per coat.

Pot Life & Curing Times @ 20°C

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

The second coat 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.

Shell 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

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