

PRODUCT NAME

AQUACHEM®

Aquachem® Primer (clear) 3040

Aquachem® Top Coat (Grey) 3008

Aquachem® (10sq/m Kit) 3044

Product Description

Aquachem® is a 2-component water based epoxy coating system suitable for a variety of applications and substrates. **Aquachem®** is supplied in a 4.5ltr Primer Pack (clear) and a 5ltr Top Coat Pack (standard colour grey). **Aquachem®** is also supplied in a box set containing 1 x primer and 2 x grey top coats to cover an area of 10 sq/m.

Uses

Aquachem® is used to reinforce certain friable cement screeds

Aquachem® is used as a damp proof membrane (DPM) for concrete, wood or other types of moisture sensitive floor surfaces including bitumen

Aquachem® is used for sealing concrete and cement based floors, brick and block walls to prevent moisture vapour transmission.

Characteristics/ Advantages

- Solvent free
- Water based, (non-toxic,) system that may be used in confined areas
- Suitable for most under floor heating systems.
- Suitable for skid resistant surfaces with the addition of various aggregates
- Hygienic coating for food preparation areas such as dairies , factories, warehouses, and is safe for aquatic life and potable water tanks
- Water Board certificated.

Product Data

Colours

Primer Base: Part A: light straw yellow/clear liquid

Primer Hardener: Part B: amber coloured liquid

Standard Top Coat: Part A: grey liquid

Hardener: Part B: amber coloured liquid

Various top coat colours are available to BS shades, e.g., various blue shades for swimming pools.

Under direct sun radiation there may be some discolouration and colour deviation on certain colours. This has no influence on the performance of the coating

Packaging

4.5 ltr Aquachem® Primer – base 1.65 kg, hardener 2.85kg (total 4.5kg)

5.0 ltr Aquachem® Grey – base 3.2 kg, hardener 2.85 kg (total 6.0kg)

10 sq/m box set - primer base 0.8 hardener 1.42, 2 x grey base 1.6 kg, 2 x hardener 1.42 kg

Tests, Approval/Standards

Water Board BS 6920

F Ball approved as an overlay or underlay of Stopgap 1200 Self levelling screed*

Liquid water permeability (EN 1062-3:2008)

Sample	Applied spreading rate (kg/m ²)	No. of applied coats	Water Transmissability W (kg/m ² .hr ^{0.5})	EN 1062-3 classification
Two coat	0.26	3	0.0061	Low
Three coat	0.26	4	0.0017	Low

Pull off adhesion (ISO 4624: 2016)

Sample	Film thickness (µm)	Breaking Strength Range (MPa)	Breaking Strength Mean (MPa)	Classification of fractures
Two coat	Approx. 80	2.19 - 4.07	3	100% A
Three coat	Approx. 120	3.43 - 4.60	4	100% A

Technical Data Chemical Base: Epoxy waterborne liquid

Chemical resistance

The cured Aquachem[®] system is resistant to short term spillages of the following:-

TEST	CURED
Chemical resistance: 24 hours, ASTM D 1308	
Hydrochloric Acid, concentrated	8
Acetic Acid, concentrated	8
Phenol	10
Xylene	8
Sulphonated, Oil, Based Detergents	10
Petrol	10
Diesel Fuel	10
Methylated Spirits	10
Ammonia	8

Chemical Resistance, 3 days' immersion

KEY:

10 - No change	2 - Partial failure
8 - Slight change	0 - Complete failure
6 - Definite change	

Thermal Resistance

Exposure	Dry Heat
Permanent	+ 50 degrees C
Short term	+ 80 degrees C
short term when exposure is only	occasional (during stem cleaning)

Storage conditions/ Shelf Life

24 months from date of production when stored in original, unopened , undamaged containers at a temperature range between +5 and +25 degrees C

Store on pallets in order to insulate from concrete floors and protect from frost.

Density: Aquachem® Primer, when mixed,1.05, Aquachem® Grey when mixed, 1.200

System Information

Application Details: Aquachem® is used to reinforce cement screeds that are crumbling on the surface,If used as a **DPM** it can be used on moisture sensitive subfloors such as anhydrite, wood, granite and bituminous substrates etc, to prevent moisture from the leveling compound penetrating into the subfloor. **Aquachem®** can be used for sealing concrete and cement based floors, brick and block walls against moisture/vapour transmission

Consumption/Coverage

Product	Smooth screeds	Textured screeds
Primer	4-5 sq/m per ltr	3-4 sq/m per ltr
Grey coat	4-5 sq/m per ltr	2-3 sq/m per ltr

Application Instructions

Mixing (*Rotafix do not advise the splitting of standard packs*)

Add the contents of Base A to the contents of the container Hardener Part B and mix well for 2 minutes until a uniform colour mix has been achieved

Mixing Tools

All Aquachem® 2-part systems must be mixed thoroughly using the recommended mixing paddle and low speed drill (150-450 rpm)

Application Method

Primer coat:

Following mixing of the 2 components this primer liquid material will be milky white. Empty the mixed liquid into a suitable paint tray. Wet the roller with the primer and make sure the main substrate. At corners and junctions revert to applying the mixed coating by brush. The milky white application will become translucent as the applied Aquachem® begins to cure.

Grey Top Coat(s):

Mix the 2 components as described for the primer coat. Place in a suitable paint tray, wet the roller with the grey top coat and repeat the application as described for the primer. Once the top coat is cured a subsequent oat may be applied repeating the same procedure.

*To ensure adequate adhesion of any overlaying surface treatment such as a cementitious screed, eg. Rendacrete® or F Ball Stop Gap 1200, ensure there is a suitable angular aggregate lightly sprinkled/broadcast over the final coat of the wet Aquachem® system.

Cleaning of Tools

Clean all tools and application equipment with water immediately following use and prior to curing, n.b., hardened and/or cured material can only be removed by mechanical means.

Pot life

Based on standard pack size/s – 4.5ltr pack of mixed primer and 5ltr mixed grey top coat

Temperature	Time
+10 degrees C	90 mins
20 degrees C	60 mins
30 degrees C	30 mins

Substrate Quality

The substrate must be clean, dry and free from all contaminants and deleterious substances such as dust and oil dirt, grease coatings and other if in doubt apply a sample of Aquachem® to a section of the substrate to be coated.

Substrate Preparation

Concrete substrates must be prepared mechanically using blast cleaning or scarifying equipment to remove cement laitance and provide a clean dust free surface

Application Conditions/Limitations

Applied **Aquachem®** must be protected against rain or humid conditions for a minimum of 15 hours, During application damp substrate may be tolerated, but **NOT** standing water.

The use of protective health and safety equipment and clothing is mandatory during the mixing and the use of Aquachem®

Substrate Temperature:

During Multi-Coat Application the times below are the minimum and maximum for applying each coat

Substrate temperature	Minimum	Maximum
+10 degrees C	48 hours	48 hours
+20 degrees C	24 hours	48 hours
+30 degrees C	12 hours	48 hours

The times in the table below are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity (RH). When the RH is > 75% the waiting time will be increased

Health and Safety Information:

Epoxy liquids and their associated curing agents can cause irritation to some people. Please take the necessary precautions indicated in the COSHH details available from our offices.

The information in this document is based on practical tests, but given without guarantee insomuch as methods of use by others is beyond our control. Due to continuing development and improvements, it may be necessary to change without notice the material specification. All goods are sold subject to our Standard Conditions of Sale.

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