

High performance silane based  
water repellent

hd. Sealer S200

## About this product

Aquapel WR is a solvent-based hydrophobic impregnating agent based on a solution of silane resin and some low molecular weight siloxanes derived from it in white spirit which will penetrate into the surface pores forming a silicone resin insitu on the surface of the pores which imparts water repellent properties to most external building surfaces. Aquapel WR is not a film-forming material and so will not affect the appearance or the water vapour diffusion capacity of the substrate. Aquapel WR penetrates into the concrete increasing the interfacial surface tension and significantly reducing penetration of water and water-borne contaminants, especially de-icing and marine salts. Thus freeze/thaw resistance of the concrete is much improved and the susceptibility to chloride-induced corrosion of the reinforcement significantly reduced.

## Uses

To shed water from buildings and structures with porous surfaces, particularly in exposed locations.

For protection of bridges or other structures from salt spray.

Suitable for concrete, brickwork, masonry and renders.

Old weathered surfaces should be wire brushed to remove lichen, algae, dust and any loose or flaky material. For large areas, water jetting or grit blasting may be effective. After applying water, allow at least 3 days of dry, warm weather (minimum 15°C) or dry by appropriate means such as controlled flame gun or propane torch and make good all cracks and spalled surfaces before applying the material.

## Application

Apply in dry weather only. Surfaces must be thoroughly dry.

Apply Aquapel WR generously by brush, non-atomising spray or roller. Do not brush out. Drying time at 20°C will be approximately 2 hours.

A thorough one-coat application will often be sufficient but for optimum performance in exposed locations and in areas which are liable to ponding or flooding for short periods, the material should be applied to refusal over a period of time, allowing it to soak well into the concrete, to a coverage rate of 3 - 6m<sup>2</sup> per litre.

On less exposed walls or soffits not subject to standing water, an application rate of 10 - 15 m<sup>2</sup> per litre will give good hydrophobic properties.

Clean all brushes and tools with solvent immediately after use.

## Features and benefits

- Easy to apply by brush, roller or non-atomising spray.
- One coat application.
- No mixing, one-pot material.
- Efficient water repellent.
- Protects against ingress of water borne ions (chlorides and sulphates).
- Prevents efflorescence.
- Does not significantly alter surface appearance.

## Surface preparation

Surfaces must be thoroughly dry. Surfaces must be clean, free from any contamination including oil, dirt, dust etc. and sound before the treatment is applied. New concrete should be at least 14 days old and all traces of laitance, shutter release or curing membrane should be removed and the surface allowed to dry out thoroughly.

## Special note

In good dense concrete it has been found that Aquapel WR (or any other silane) does not penetrate more than about 1 mm and at this level of penetration the silicone resins formed in situ are not particularly durable to weathering. By applying a coat of Hardac Acrylic Sealer over Aquapel WR treated substrate, the silicone resin formed near the surface is protected by the excellent weathering resistance of the acrylic resin film.

In permeable concrete or masonry the penetration of Aquapel WR will be greater and the deeper the penetration it is more likely that the long term water repellency will be good without protection.

In tests by Wiss, Janney, Elstner, Associates Inc. under procedures the Institute in USA National Co-operative Highway Research Programme (Report 244), results as follows were obtained at a coverage rate of 3.1 m<sup>2</sup>/litre using a 20% solution of iso octyl trimethoxy silane.

<i>Reduction of Chloride ion Content in concrete over uncoated control samples</i>	89%
<i>Reduction of water gain over uncoated concrete samples</i>	85.5%

## Precautions

Areas must be well ventilated.

Do not apply with an atomising spray or in confined spaces.

Do not apply to wet or damp surfaces.

Do not apply at temperatures below 3°C.

Do not apply Aquapel WR to Mulsifix Fairing Coat.

## Packaging and supply

Aquapel WR is packed in 5 litres, 25 litres and 200 litres non returnable containers.

## Shelf life and storage

Minimum shelf life is 12 months. Replace lid immediately after use. Once opened, use the material within 2 weeks.

Store in a cool, dry place.

## Health and safety

Contact with skin must be avoided - wear rubber gloves and protective clothing. If accidentally spilled on the skin, remove immediately with a dry rag and cleanse with proprietary cleansing creams. If product enters the eye, wash thoroughly with water and seek medical advice if discomfort continues.

For further information, please refer to the Product Safe

## COSHH regulations

The Product Safe Handling Guide referred to above, provides all necessary information and data, on the whole of the range, in relation to the COSHH regulations (Control of Substances Hazardous to Health). Advise was obtained from experts including the Health and Safety Executive (HSE) to ensure the Product Safe Handling Guide contained all necessary information for a contractor to carry out a responsible COSHH assessment. Qualified persons e.g. doctors, toxicologists etc. can obtain more detailed information on individual products by writing to our Technical Department.

## Quality assurance

A policy of strict quality control has always been followed and the requirements of all relevant test standards are strictly adhered to.

## Technical service and representation

We can provide technical service at the specification stage and/or during application through our Technical Department or Laboratory. Detail specification or further information can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.



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To the best of our knowledge and belief, the information contained in this leaflet is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Test results shown reflect typical figures based on laboratory testing under

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