

K501

Waterbased Waterproofer

Product Description

K501 is a waterbased solvent-free water repellent based on a combination silane-siloxane technology. The blend is designed to give both excellent water repellency to porous surfaces, particularly to masonry substrates. It is a high durability system which has a life expectancy of 10 years.

When applied, K501 penetrates deeply into the substrate and once dried is virtually undetectable, thereby preserving the original appearance and character. It remains stable and is not prone to slow outward diffusion, therefore, it lasts longer and confers a great degree of waterproof protection. K501 can be applied by all conventional methods and is ideal for use on brickwork, cementitious substrates, natural stones and other porous substrates, and prevents damage which might otherwise occur by ingress of water.

Uses

- Clear water repellent for external walls
- For use over many common porous substrates

Characteristics / Advantages

- Water based (solvent free). Zero V.O.C.
- Once dried the product is clear and preserves the original appearance and character of the substrate.
- Achieves early waterproofing properties.
- Displays early resistance to wash off by rainfall.
- Suitable for application over a wide range of temperatures.
- Highly durable - normally 10 years before further application.
- Suitable for many substrates.
- Easily applied by conventional methods.
- Non film-forming, allows water vapour to permeate from the underlying substrate.
- May be over-painted.

Product Data

Form

Appearance

Milky liquid, once applied provides a virtually undetectable hydrophobic surface to most common porous building materials.

Packaging

5 & 15 litres

Storage

Storage Conditions / Shelf Life

12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +25°C. Avoid exposure to frost and sources of heat.

Technical Data

Chemical Base Water based

Density S.G. : Approx. 1

pH Approx. 7.5

Drying times

- Visibly dry at 15 mins - 30 mins.
- Water repellent from 1 hour.
- Waterproofing from 24 hours.

Resistance

Mechanical / Physical Properties

Accelerated Weathering: 3000 hour exposure to Q.U.V. ASTM G53-88

Typical Depth Of Penetration:

- Red facing brick - circa 1mm
- White cement brick - circa 3mm

Waterproofing: K501 applied to cement particle board with a 6 cm head of water. 24 hrs cure.

- Water absorbed = $0.25 \text{ cm}^3/\text{cm}^2$
- Control = $> 6 \text{ cm}^3/\text{cm}^2$

Note: The product is not intended for use where a hydrostatic head of water is present; the test is to indicate the relative aspects of treated and untreated absorbent board in a 'worst case' situation.

Performance

K501 provides water repellency by penetrating into the substrate and curing to form a hydrophobic layer lining the pores. This hydrophobic layer does not allow the ingress of liquid water; however, it will still allow the passage of water vapour thereby allowing damp substrates to dry out.

K501 can become resistant to wash off by rainfall as soon as 1 hour after application. Full water repellency is generally achieved after 24 hours. K501 achieves maximum water beading effect only after first rainfall.

Roofing



System Information

Minimum Coverage Rates

10 Year Expected Durability

Substrate	Highly absorbent substrates will require the application of greater quantities of K501. Depth of penetration will vary depending upon the absorbency of the substrate and the quantity of K501 applied.	
First Coat	K501	0.13 - 0.17 m2 per L - 6 - 8 m2 per L
Second Coat	K501	0.13 - 0.17 m2 per L - 6 - 8 m2 per L
Overall		0.25 - 0.33 m2 per L - 3 - 4 m2 per L

Application Details

Substrate Quality

SUBSTRATE DATA

K501 is suitable for use on most mineral surfaces. It imparts waterproofing properties by being absorbed into the surface and should therefore not be used on highly dense non-porous substrates such as engineering bricks, glazed tiles etc. Any obvious cracks, voids, missing portions of the surface or defective joints must be made good prior to treatment otherwise rain penetration may subsequently occur at these points. Hairline cracks which are stable do not require any form of pre-treatment.

Suitable substrates include :

- Cementitious materials *
- cement/lime sand finishes
- brick
- rough cast or pebble dash
- weathered cement based boards
- natural and artificial stone

* see also notes on application limitations

Roofing



Application Conditions

Substrate condition Before application of K501 the surface must be free from contamination and reasonably dry (refer to moisture content below) wet or contaminated surfaces will inhibit the absorption of the liquid and limit the effectiveness of the system

Air Temperature: +3°C (min) / +35°C (max)

Substrate Temperature: +3°C (min) / +35°C (max)

Substrate Moisture Content: 25% (wood moisture equivalent)

Dew Point: Beware of condensation!
The substrate and uncured material must be at least 3°C above dew point.

Application Instructions

Application Method Prior to application, confirm substrate moisture content, relative humidity and dew point.
Ideally begin application at the lowest point of the surface to be treated and work upwards

Tools Spray Equipment - Low pressure spray equipment e.g. air spray is sufficient.
Brush - Wide soft nylon or bristle.

Cleaning of Tools: Clean equipment in water immediately after with water.

Maintenance Periodic re-coating of the substrate will be required to maintain water repellency. This is envisaged to be necessary after 10 years.

Waiting Time/ Overcoating The second coat should be applied immediately after the first coat has been absorbed or up to 24 hours after if a delay cannot be avoided

Notes on Application / Limitations: K501 is not intended for repair and protection of structural concrete as defined in BS EN 1504

Do not apply K501 to non absorbent surfaces - if applied to non absorbent surfaces K501 may form a weak film that may progressively wear away. In this form it may be visible

For spray application the use of protective health & safety equipment is mandatory!

New concrete should be allowed to cure/hydrate for a minimum of 10 days and preferably 28 days.

Do not apply near foodstuffs in unventilated conditions, always ensure adequate ventilation.

Do not apply if rain is imminent.

Do not apply if the temperature is below 3°C and providing this is above the dew point.

Do not dilute.

If efflorescence is present, expert advice should be sought before treatment.

Shake well before use.

Roofing



Value Base All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information For information and advice on the safe handling, storage and disposal of chemical products, please refer to the most recent Material Safety Data Sheet.

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