



Planiseal WR 40

Ready-mixed 40% silane-based, hydrophobising, migrating liquid in watery emulsion applied on the surface of reinforced concrete structures



WHERE TO USE

Thanks to its hydrophobising properties, **Planiseal WR 40** is particularly recommended for protecting all reinforced concrete structures exposed to weather.

Thanks to its special formulation, **Planiseal WR 40** may be applied directly on both vertical and horizontal surfaces of porous and compact concrete requiring repair, concrete that has already been repaired and on new concrete with no evident signs of detachment from the reinforcing steel.

Some application examples

- Floor slabs.
- Front edges of balconies.
- Stringcourses.
- Prefabricated structures (buffer panels, beams, columns, etc.).
- Internal and external reinforced concrete structures in general.

TECHNICAL CHARACTERISTICS

Planiseal WR 40 is a 40% silane-based, low-density hydrophobising liquid in watery solution that is applied directly on the surface of the concrete to be treated.

Thanks to its composition, **Planiseal WR 40** can hydrophobise medium quality concrete surfaces, protecting them from degradation caused by pouring rain. **Planiseal WR 40** doesn't change aspect and breathability of the substrate.

Planiseal WR 40 complies with Euronorm EN 1504-9 (*"Products and systems for the protection and repair of concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems"*) and the requirements of EN 1504-2 (*"Concrete surface protection systems"*) according to principles PI, MC and IR for class: H – hydrophobic impregnation: surface protection products.

RECOMMENDATIONS

- Do not dilute **Planiseal WR 40** with water during preparation.
- Do not add any other product (solvent, cement, etc.).
- Do not apply on the surface of concrete in direct contact with drinking water.
- Do not apply the product if the surrounding temperature is less than +5°C.
- Protect adjacent surfaces, including metal, glass and wood. Immediately remove all accidental splashes with water or ethanol.

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Application of
Planiseal WR 40
by brush

APPLICATION PROCEDURE

Substrate preparation

Concrete must be well cured, sound, and clean and free of all traces of oil, grease, cement laitance, old paint and any other material or substance that could prevent **Planiseal WR 40** from penetrating into the concrete. When treating old concrete, the cleaning method adopted depends on the type of dirt or stain to be removed. Hydro-blasting with cold water is generally sufficient to open surface pores and thus facilitate the penetration of the product. Hydro-blasting with hot water is particularly effective in removing oil and grease. If there are no stains or dirt, blowing the surface down with compressed air is usually sufficient. Before applying **Planiseal WR 40** wait until the surfaces are dry.

Preparation of the product

Planiseal WR 40 is supplied ready-mixed and must not be diluted with water or solvent. The product must be mixed before use in order to assure perfect homogeneity.

Application of the product

Make sure the surface of the concrete is not frozen and that rain or a drop in temperature to below +5°C is forecast for at least 12 hours after application. The effectiveness of **Planiseal WR 40** depends on its penetration depth and this in turn depends on the type and absorbency of the concrete. The product may be applied by low-pressure airless spray on large surfaces or with a roller for smaller areas. It is recommended to apply two coats of product to get a more uniform distribution. The second coat may be applied while the first coat is still wet, as long as it has penetrated into the substrate. Remove any excess product with a roller while still wet. The surrounding temperature, the temperature of the substrate and the absorbency of the substrate will all affect the product's drying time.

Do not apply **Planiseal WR 40** on substrates that are not sufficiently cured. Areas that are still moist could limit the spread of the product deep down into the concrete.

Contact MAPEI Technical Services for advice regarding application on substrates or in conditions not mentioned in this Data Sheet.

PRECAUTIONS TO BE TAKEN DURING APPLICATION

- Do not apply **Planiseal WR 40** if it is about to rain or if rain is forecast within 12 hours of application.

- Apply at a temperature of +5°C to +35°C.
- Do not apply the product in strong winds.
- Do not apply the product on wet or damp concrete.
- Do not apply on external hot surfaces exposed to strong solar radiation.

Cleaning

Rinse tools and remove all traces and splashes of product immediately after application with water or ethanol.

CONSUMPTION

Consumption varies according to the porosity of the substrate and is generally around 0.1-0.2 kg/m² per coat.

PACKAGING

Planiseal WR 40 is available in 5 kg tanks.

STORAGE

Planiseal WR 40 may be stored for 12 months in its original packaging in a covered, dry area. Store the product in an area with a temperature between +5°C and +35°C.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Planiseal WR 40 is hazardous for aquatic life. Do not dispose of this product in the environment.

When applying the product it is recommended to wear protective gloves and goggles and to take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin wash immediately with plenty of water and seek medical advice.

For further and complete information about the safe use of our product please refer to the latest version of our Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

Planiseal WR 40: ready-mixed 40% silane-based, hydrophobising, migrating liquid in watery emulsion applied on the surface of reinforced concrete structures. Complies with Euronorm EN 1504-9 (H) principles PI, MC and IR

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency: liquid

Colour: white

Density (g/cm³): 0.95

Dry substance content (%): 40

Viscosity (mPa·s): 3.95

APPLICATION DATA (at +20°C - 50% R.H.)

Application temperature: +5°C to +35°C

Dilution rate: ready-mixed

FINAL PERFORMANCE

Performance characteristic	Test method	Requirements according to EN 1504	Performance of product
Penetration depth:	EN 1504-2 (table 3, n.19)	Class I: < 10 mm Class II: ≥ 10 mm	Class I: < 10 mm
Water absorption and resistance to alkali:	EN 13580	Absorption rate < 7.5% compared with untreated test sample	5.2%
		Absorption ratio after immersion in alkali solution <10%	9.1%
Drying speed coefficient:	EN 13579	Class I: > 30% Class II: > 10%	54.3% (Class I)
Loss in mass after freeze-thaw cycles with de-icing salts:	EN 13581	The loss in mass at the surface of the impregnated test sample must take place at least 20 cycles after the non-impregnated test sample	ΔC = 32
Hazardous substances:	EN 1504-2, 5.3	/	Compliant

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LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

All relevant references for the product are available upon request and from www.mapei.com

