

PRODUCT INFORMATION

EMULSION LEN50

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Manufacturer's Code: RPLEN50

Updated: 01/01/2026

Product Name: EMULSION LEN50

Description: EMULSION LEN50 is a water-based user-friendly silane/siloxane emulsion. After dilution with water, EMULSION LEN50 is used as a water repellent sealer for treating neutral substrates such as outdoor timbers or masonry materials. It penetrates into the capillaries of permeable substrate forming a water repellent zone within the treated surface. This water repellent zone significantly reduces the absorption of water which is responsible for the bulk deterioration of substrates. EMULSION LEN50 may also be used as a water repellent admixture for textured coating, latex paint or polymer render.

Recommended Uses: EMULSION LEN50 is recommended as a water repellent sealer for treating permeable neutral substrates including outdoor timber, fabric/paper, natural stone, and polymer render. EMULSION LEN50 may also be used as a water repellent admixture for textured coating, latex paint or polymer render. Some of the important features of EMULSION LEN50 include:

- Fast water beading effect after application
- Water-based, non-toxic, and non-caustic formulation.
- Bonds to the substrate with no peeling.
- UV, alkali stable and durable formulation.
- Reduces water absorption and water-borne staining.
- Does not significantly change surface appearance and vapour permeability.

Use Instructions: As Penetrating Water Repellent Sealer

1. Dilution

EMULSION LEN50 is diluted with water before use. The recommended dilution rate is 1 part EMULSION LEN50 to 9 parts deionised water. However, for the best result, a test should be conducted to find the most suitable dilution ratio for intended purpose. We recommend using deionised water for the dilution but local tap water may also be used if it contains low level of minerals. A test must be undertaken to ascertain the suitability of local tap water.

2. Application

EMULSION LEN50 may be applied using brush, roller or spray. However, the product is preferably applied by saturation application using a hand pressure spray or airless spray equipment to avoid direct contact of application equipment with the surface. Enough material should be applied onto the surface. For the vertical surface, a second application should follow **immediately** after the first coat is absorbed by the surface. This is termed a "wet-on-wet" application. This is to saturate the surface to allow better absorption and penetration. For horizontal surfaces, one flood coat application may be adequate. If the sealer is instantly absorbed by the substrate, a second coat may be applied **immediately** while the surface is still wet. Any remaining liquid on the surface which has not been absorbed by the surface after 5 minutes should be removed. This is to avoid excessive accumulation of the sealer in any area which may cause an

uneven finish or contamination in the area. The number of applications depends on the permeability of the substrate. For a dense surface, one or two “wet-on-wet” applications is adequate, but for very permeable substrate, two or more coats “wet-on-wet” may be required.

Always stir EMULSION LEN50 (concentrate or after dilution) before use. Mask off window, doors or any areas you do not wish to treat. If accidental splashing occurs the product should be removed with a damp cloth **immediately** to avoid possible contamination.

3. Consumption rate

The consumption depends on the permeability of the substrate. For very permeable substrate, it may be of an order of 1-5 m² per litre per coat. However, for other substrates, it may vary from 5 to 40 m² per litre per coat.

4. After application

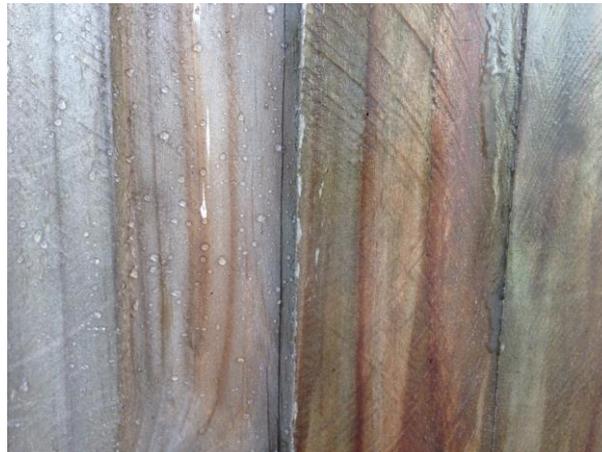
Instant surface beading will develop immediately after dry, however, better water repellent effect will develop in 24 hours and could take up to 7 days for full curing. Avoid heavy traffic for 24 hours. Wash the equipment in water **immediately** after use.

5. Pilot testing

Due to the variation of substrates, it is strongly recommended that a pilot test on a small area on site should be conducted prior to application to determine the suitability of this product for the purpose.

Photos below show that a good water repellent effect has developed on pine fence boards treated with EMULSION LEN50 at 1:9 dilution (left: treated; right: control):

Pine fence boards treated with EMULSION LEN50



As Water Repellent Admixture for Paint/coating/render

EMULSION LEN50 may also be used as a water repellent admixture for textured coating, latex paint or polymer render. The product is added at 1-3% by weight into the coating/render during the final in-plant mixing stage. The resultant coating, after full cure, exhibits good surface beading resulting in low water absorption of coating film. In addition, EMULSION LEN50 will also provide early water resistance to the coating film, preventing early wash-down due to rain or dew contacting the coating before cure. The water absorption through the coating film can be reduced by up to 95% after coating is fully cured.

Typical Data:	Appearance:	White emulsion
	Solids content:	50% by weight
	Specific Gravity:	ca. 1.0 g/ml at 20 °C
	pH value:	7-9
	Solubility in water:	dispersible in water
	VOC content:	Nil

Important Note: EMULSION LEN50 penetrates into the capillaries and renders the surface water repellent while still leaving the capillaries open and allowing water vapour to evaporate. It reduces water absorption by capillary action. However, it has a limited resistance to water penetration particularly under prolonged contact or hydrostatic pressure. Therefore, in some cases where the substrate is very permeable or there is extreme wind driven rain, resistance to water penetration or water-borne staining may not be adequate.

Handling & Storage: EMULSION LEN50 is a water-based, non-toxic, non-caustic and user-friendly product classified as a non-hazardous material according to the criteria of WorkSafe Australia. However, as with all chemical products, good industrial hygiene procedures should be followed when using this product. The product should be stored in a closed container in a cool dry place away from any fire sources. The product has a shelf life of 12 months in a sealed container stored at a temperature below 25°C.

Use under sufficient ventilation

Keep out of reach of children!

Packaging: EMULSION LEN50 is available in 20, 200 and 1,000 litre plastic containers.

Disclaimer:

The information given in this data sheet is based on many years of experience and is correct to the best of our knowledge. As the storage, handling and application of this material is beyond our control; we can only be responsible for the quality of our product at the time of dispatch. We reserve the right to alter certain product parameters within the spectrum of properties in order to keep abreast of technical advances. It is the responsibility of the end user to determine the suitability of this material for any particular application.