

PRODUCT INFORMATION

EMULSION GPE50N

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Manufacturer's code: RPGPE50N

Updated: 22/09/2014

Product Name: EMULSION GPE50N

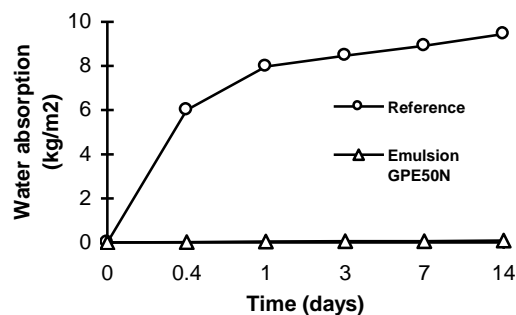
Description: EMULSION GPE50N is a silane/siloxane emulsion with enhanced performance. It is used to produce water-based silane/siloxane water repellent sealer or primer for sealing masonry substrates after dilution with water. The product may also be used as additive for improving water resistant property of masonry coating/paint. The silane/siloxane reacts with masonry substrates providing permanent water repellent effect to the treated masonry.

Recommended Uses: As water repellent for treating masonry materials:

When diluted with water, EMULSION GPE50N is recommended for the water repellent treatment of many masonry substrates including concrete masonry, cement mortar or renders, clay bricks, and terra cotta tiles. We recommend using deionised water for the dilution at a ratio of 1 part EMULSION GPE50N up to 9 parts water.

Figure 1 shows long term water absorption results for clay brick treated with 5% (active silicones) GPE50N emulsion. The water absorption of the treated brick compared to that of the reference was significantly reduced.

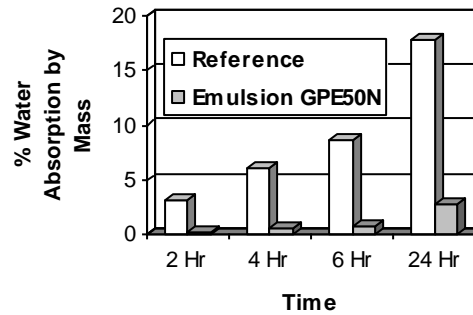
Figure 1. Water Absorption of Treated Brick



As an admixture in acrylic primers:

EMULSION GPE50N can be added to acrylic to produce an acrylic water repellent primer that is a film-forming impregnant. Such products possess both film forming and penetrating properties. The result is a coating combination with very low water absorption. Acrylic primers containing EMULSION GPE50N provide better protection for the substrate surface and the subsequent top coat. The low water absorption of the primer coat reduces water ingress through imperfections or damage to the topcoat resulting in a durable coating system.

The water absorption test results show that an acrylic primer with addition of 5% EMULSION GPE50N provides 80% reduction in water absorption compared to that of the standard cement render as shown in Figure 2.

Figure 2. Water absorption of acrylic primer with GPE50N

Use Instructions: As masonry water repellent

A working solution of EMULSION GPE50N can be prepared by diluting the EMULSION GPE50N with deionised water to an active content of 5% (or 1:9 dilutions). Concentration may change depending on application. A test should be conducted before application. Stir EMULSION GPE50N before dilution. Such a diluted solution should be stable for 6 months in a sealed container at a temperature below 25°C.

The above solution can be applied to masonry surface by brush, roller or sprayer. A garden sprayer or low pressure airless sprayer is preferred. One or two flood coats may be required depending on application. If two coats are required, the second coat should be applied immediately after the first coat is absorbed by the surface. This is called wet-on-wet application. This is to ensure deep penetration and to avoid possible poor spreading of the second coat caused by the good beading effect after the first coat dries. Always stir the product before use.

As an admixture in acrylic primers

An acrylic primer can be prepared according to the following formula:

Duramul 850 (acrylic emulsion from Momentive)	300kg
Texinol (Coalescing agent)	18kg
EMULSION GPE50N	60kg
Deionised Water	640kg

Duramul 850 is added to deionised water with stirring followed by coalescing agents and then defoamer and biocide. Emulsion GPE50N is then added into the above mixture.

Typical Data:

Appearance:	Milky white liquid with slight odour
Solids content:	50% by weight
Specific gravity:	0.94-0.98
pH value:	7-9
Solubility in water:	Miscible

Important Note: It is recommended to conduct trial prior to using EMULSION GPE50N to determine the suitability of this product for the purpose.

Handling & Storage: EMULSION GPE50N is 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 handling. The product should be stored in closed containers in a cool dry place away from any ignition sources. The product has 12 month shelf life at below 25°C.

Packaging: EMULSION GPE50N is available in 20, 200 or 1,000 litre package.

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