



# HAPPILAC HI-SEAL WP-44

## Elastomeric Polymer Modified Cementitious Water-Proofing Coating

Happilac Hi-Seal WP-44 is a two-component elastomeric polymer modified cementitious coating that provides a hard wearing, seamless, waterproof membrane for roofs; resurface concretes, masonry surfaces, foundation protection and most other constructed areas. It is also an effective barrier to waterborne salts and atmospheric gases.

### Recommended For

Happilac Hi-Seal WP-44 is recommended for water retaining structures such as water reservoirs, canals, swimming pools, abattoirs, bathrooms, showers, podiums, terraces, balconies, immersed and subterranean areas. It is also suitable to be used on pedestrian walkways in marine areas.

### Features

- It provides a unique durable membrane while maintaining flexible and permanent water proofing properties.
- It is fast drying and possesses high adhesion after 24 hours and suitable for humid and cold environments.
- It provides protection to concrete surfaces from carbonation and chloride attack.
- It can be applied to 24 hours old concrete, thereby, giving immediate protection while the conventional coating requires 7-28 days for curing of concrete.
- It is breathable, allows transmission of water vapors from the interior of the building.
- It is water-based, non-toxic and non-flammable and suitable for contact with potable water.
- Its high elasticity can accommodate substrate dynamic cracks.
- It has crack bridging capability, even on existing or new cracks.
- It is suitable for interior or exterior surfaces.

### Technical Details

Appearance	White liquid, light grey powder
Drying based on ambient conditions	25°C
Recoat	2-4 hours
Tilting or toppings over	After 24 hours
Mixing ratio	1 part liquid: 3 parts powder (by volume)
Pot life	20 minutes at 25°C
Coverage	1.8 kg/m <sup>2</sup> in 2 coats at 1 mm thickness
Bond strength	≥2.0 MPa
Tensile strength	≥3.0 MPa
Flexural strength	1.0 - 1.2 MPa
Layer Thickness for effective water proofing	3-4mm in total (2mm max. per coat)



## Surface Preparation

Surface must be prepared thoroughly before commencing application. All substrates must be structurally sound, stable, dry and clean. Rough surfaces must be filled and made even. All surfaces must be free from protruding surfaces, loose materials, curing membranes/agents, release agents, wax residues, foreign particles, algae and moss, grime, oils, animal fats or grease remains etc. Structurally unsound layers and surface contaminants are to be mechanically removed by abrasive blasting, blast tracking, grinding or equivalent methods.

## Application

Saturate the concrete surface with clean water; apply the first coat while the surface is still damp but free standing water. Apply using a short still bristle brush or roller at a minimum of 0.5-1 mm per coat. Leave to dry for 2-4 hours. The second coat can be rubbed down with a soft dry sponge. Spray or trowel application is acceptable provided the mixing ratio is adjusted to achieve the right consistency.

### Mixing

Happilac Hi-Seal WP-44 part A (powder) should be added slowly to part B(liquid) during the mixing process which should be carried out using a mixing paddle attached to a slow speed power drill of 300 to 600 rpm. Mixing should remain for at least 2 minutes until the material gains a smooth consistency, is even in color and free from lumps. Don't add water or rework on a stiffened mix by adding water. Use mixed material within 20-30 minutes.

### Cleaning

Happilac Hi-Seal WP-44 should be removed from tools and equipments immediately after use with water. Hardened material can be removed mechanically.

## Available Packs and Storage

The shelf life of product is as follows, provided the product is stored in an un-damped place and is in original sealed packing.

Powder component: 6 months

Liquid component: 8 months

The product is supplied in:

Happilac Hi-Seal WP-44 Powder: 15kg bag

Happilac Hi-Seal WP-44 Liquid: 5liters can

Protect from direct sunlight and store in temperature between 5-25°C

## Health and Safety Notes

- As with all chemicals, ample care should be taken during use and avoid unnecessary contact.
- In an enclosed area, provide ventilation.
- Treat splashes to eyes and skin immediately within 15 minutes and obtain prompt medical attention.
- For detailed information on health and safety hazards and precautions for use of this product, please refer to the Material Safety Data Sheet (MSDS).

*The information provided in this data sheet is accurate and authentic to the best of our knowledge and based on standard tests. However, results may vary due to possible variations in field conditions and application procedures.*

