

HYDROPOXY

Technical Data Sheet

Description

Neptune Hydropoxy is a water based solvent free, two part epoxy coating for sealing & priming of concrete, plaster, brickwork & block work. When properly applied it will prevent rising damp, withstand hydrostatic pressure, prevent efflorescence & provide a top quality surface for additional waterproof membranes or adhesive laid vinyl's & tiles. The product is non- flammable, easily cleaned up with water & is suitable for use in areas of difficult access or sensitive locations.

Durability

The cured coating has excellent abrasion & chemical resistance & two coats will provide a medium duty coating which will withstand constant immersion & foot traffic.

Preparation

Remove all loose material from the surface & make good any structural defects. Methods such as chipping, abrasive blasting, high pressure water blasting, mechanical or chemical etching/scrubbing may be necessary. The surface should be clean & free from grease, oil, wax, paint, dust & all contaminants. New concrete should be allowed to cure for at least seven days prior to application & all laitance must be removed. Previous coating should be removed thoroughly by mechanical means. Smooth or polished concrete should be profiled by either acid etching or mechanical abrasion to promote optimal adhesion.

Typical Application

Neptune Hydropoxy is used in areas requiring good chemical & wear resistance. It is suitable for areas such as chemical plant storage areas, warehousing, dry lining of cellars & retaining walls, toilets, laboratories & food preparation facilities. It is commonly used as a primer/sealer coat before application of products such as solvent free epoxy topcoat systems, self- levelling screeds or under vinyl or tiles areas, especially where the moisture content of the concrete may be high.

Areas used:

- Sealing concrete walls & floors from water ingress
- Food processing industries
- Chemicals/Pharmaceutical Industries
- Process area e.g. beverage, bottling areas, dairies, etc.
- Power Stations
- Plastic Industries
- Laboratories
- Clean Rooms
- Exhibition Halls
- Showrooms
- Washrooms
- Warehouses
- Hangers
- Motor repair shops

For use on substrates such as:

- Mortars
- Concrete
- Stone
- Epoxy modified mortars

Advantages

- Good mechanical properties
- Good chemical resistance
- High bond strength
- Good penetration
- Coloured to ensure coverage
- Waterproof
- Solvent free
- Multi use

Application

Neptune Hydropoxy is applied by using a short or medium nap lamb's wool roller or by brush directly from a paint tray. Work the product into the surface to ensure complete coverage & penetration, spread evenly but do not over spread. Avoid reworking areas that have been coated but are still curing. Apply two coats in a cross hatch pattern at 90°s to each other where possible, each coat should be 180-220 microns depth when wet-regular wet film gauge checks should be made often. A single coat is used when additional waterproof or toppings are to be applied. Two coats are necessary to comply with the moisture barrier requirements. Allow each coat to cure for a minimum of 12 hours at >20C, before application of the subsequent coat.

If the wall or floor areas have holes or cracks, Neptune Flour is added to a quantity of Neptune Hydropoxy. Make a slurry to a consistency which will fill cracks or holes. For major cracks/holes, use Neptune Water Plug. It is ideal for filling the cut chase at floor/wall junctions.

Application conditions

Neptune Hydropoxy should not be applied in frosty weather, at temperatures below 8C or above 35C or if rain is imminent. Optimum conditions for application are between 15 and 25C and 60-85% relative humidity.

Priming

Neptune Hydropoxy does not require the use of a primer, especially porous substrates may be sealed with a pre-coat of Neptune Hydropoxy (slurry coat) with additional water added once the two parts are mixed up to maximum dilution of 50%

Mixing

Premix each of the parts A and B in the original containers for 2 minutes with a drill mixer to ensure uniformity. **The mix ratio of Neptune Hydropoxy is 4:1 by volume**, mix the contents of Part A (grey liquid) with Part B (straw liquid) in the correct ratio with a drill mixer for a minimum of 3 minutes, and allow to stand for 5 minutes before applying. The maximum pot life once mixed is 2 hours at 20°C, dispose of unused product by allowing to cure in the mixing pot & land filling in sealed containers.

When using as a moisture barrier, you can add 40%-50% water to the mixture after 3 minutes of mixing. This will give approximately 9m² per litre coverage for one coat. For 2nd coat

application, can water down by 25% giving coverage of 7.5m² per litre.

Clean-up

Clean tools and equipment with warm water and detergent before the product cures. Minimize the amount of product entering the aquatic system by wiping with rags & disposing of them in sealed bags once the product has cured.

Packaging

4L, 8L, and 20L kits each consisting of clearly identified Part A and Part B

Pot Life

90-120 minutes at 25°C

Shelf Life

Well stored, unopened packs have a 24 month shelf life if protected from frost and excess heat.

Coverage

As a primer for subsequent over coating with waterproof membranes or epoxy topping systems 5-6m²/litre

As a moisture barrier 4m²/litre per coat is normal, except on very porous substrates. The wet film thickness should be 180-220 microns per coat.

Safety Precautions

Avoid contact with skin & eyes, use a barrier cream to avoid sensitization, wear impermeable gloves and eye protection. Use only soap and water to wash product off as soon as possible. Ensure adequate ventilation and avoid inhalation of any vapours. Keep away from children and animals. If swallowed do NOT induce vomiting. Give plenty of water to drink and obtain medical advice. Consult detailed MSDS. Use best good occupational health and safety practices. Avoid spillage into water courses and drains where possible.

Technical Performance Data

Colour	Part A – grey Part B – straw
Finish	Matt to semi-gloss
Volume Solids	50%
VOC content	<1%
Mixing Ratio	1:1 by volume
Coverage	5-6m ² /litre for priming under subsequent membranes & topping. 4m ² /litre per coat for use as a moisture barrier.
Recoat time	4 hours @ 25°C and 50% RH
Full cure	7 days @ 25°C and 50% RH
Pot Life	90-120 minutes @ 25°C
Water Vapour Transmission	15g/m ² as a single coat primer at 6m ² /litre application rate
ASTM E96	9g/m ² as a two coat moisture barrier At 4m ² /litre application rate
Shore A Hardness 90	
Adhesion ASTM4541	8N/mm ²

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