

INSTALLATION MANUAL **POND LINING** with IMPERMAX SYSTEM

Koi Fish Approved
20 Year Waterproofing
Coating System



IMPERMAX - INSTALLATION MANUAL

IMPERMAX FOR POND LINING

1. Screed the pond to provide a smooth even surface -and let the screed dry for about 28 days to be fully cured and to let any cracks/ fissures develop.

2. Clean the surface and remove any traces of dust, micro-organism or materials which may interfere in the systems adhesion.

3. Fill in all cracks / Fissures with Exterior Mastic -such as Rayston Flex 3040, and tape all cracks-ready for the application of the correct Primer.

4. **For Dry Concrete** - the Primer is Porosity Sealer Flex - which comes in 2 x drum sizes with an application rate of 200 gms per sq m.

A 4kg drum of Porosity Sealer Flex will cover ----20 sq metres

B 20kg drum of Porosity Sealer Flex will cover—100sq metres

5. **For Damp Concrete** (less than 6 %) -the Primer is Humidity Primer -which comes in 2 x drum sizes with an application rate of 300gms per sq metre.

A 5kg drum of Humidity Primer will cover --16 sqm

B 18kg drum of Humidity Primer will cover -60 sq m

6. **Application of Impermax** - which comes in 3 x drum sizes of 5kg, 10kg and 25 kg- with an application rate of 2kg per sq m applied in two layers of 1kg per sq m each.

A 5kg drum of Impermax will cover 5sq m of 1 x layer at 1kg per sq. metre.

B 10 kg drum of Impermax will cover 10sq m of 1 x layer at 1kg per sq. metre.

C 25 kg drum of Impermax will cover 25 sq metres of 1x layer at 1kg per sq m

Note : 2 x layers of each 1 kg per sq m is required.



APPLICATION

Best to start with the walls of the pond, so that you can move around the pond without problems, and apply enough layers of Impermax - until you reach the correct thickness. For Vertical walls it will probably take 3 x layers of Impermax (each 0.75 kg per sq metre) to achieve the correct thickness of 2kg per sq m (1.8-2mm thickness) For the floor of the pond you will be able to apply the full thickness of Impermax in two thick layers of each 1kg per sq metre.

Impermax Liquid Pond Liner and all Primers are applied by a roller or brush.

The drying time for each layer of Impermax QC is approximately 4 hours (depending on temperature).

Reinforcement in any waterproofing system you have to reinforce critical areas like upstands and where the floor of the pond meets to vertical walls and any changes of direction in the construction. At these critical areas we have to lay into the first wet layer of impermax a simple Polyester reinforcement and saturate this polyester so that the white colour of the Polyester reinforcement does not show. When this first layer has dried we apply a second layer of Impermax to give the required thickness of 2kg per sq. m (1.8mm thick) This Polyester reinforcement is called **Geo Max 80** and is available in 2 x roll sizes -100m x 0.3m wide and 100m x 1.0 m wide. For Upstands and the area where the Base/ floor meets the vertical walls-- you should lay the special 30cm x 1 m strip of Reinforcement into the first wet layer of Impermax. Half the 30cm strip of Geo max Polyester (15cm) is laid up the vertical wall and the other 15cm is laid into the horizontal base of the pond, and the polyester is then fully saturated with Impermax.



Critical Areas - are any outlets / holes/ protruding pipes and junction of walls and floor- all these have to be reinforced with Geo Max Polyester reinforcement and saturated with Impermax.

Telephone Contact -if in any doubt please contact us at the Contact Number 07970 455050.

WHAT NOT TO DO WITH IMPERMAX POND LINING



DON'T

1. Hurry to much and start the work without a good understanding of the method you will follow and knowing the safety measures that will be needed.
2. Mix or mechanically stir at high speed the Impermax drums-this will introduce air into the product-causing bubbles or pin holes.
3. Try to do the work with the correct tools – gloves and eye goggles and short fibre rollers, and solvent for cleaning your tools.
4. Take short-cuts and avoid steps in the process, which must be.

Substrate Preparation

- A Priming - if the substrate is bad or wet you may need 2 x layers of primer
 - B Reinforcement of all details and edges, pipes, corners and upstands.
 - C At least 3 x layers of Impermax on vertical surface
 - D Always apply 2 x thick layers of Impermax on the Base of the pond and do not dilute/ thin the products since it long term performance is directly related to thickness
5. Apply Impermax to different surfaces -- without using the correct primer.
 6. Apply Impermax onto moist surfaces or wet surfaces or when it is raining-since this will result in blisters being formed or poor adhesion.
 7. Leave the application of Impermax onto the Primer more than **36 hours**-if this time has elapsed then you must reprime with **PU Primer**. In addition, if you have to leave the first layer of Impermax more than 36 hours before the Top Coat is applied -then you must re-prime with **PU Primer** to activate the surface.
 8. Fill up the pond too quickly. It is best to leave the Impermax-- **a full 7 days to fully cure** and then rinse the Impermax surface with water and detergent.

TROUBLESHOOTING PROBLEMS

The following are typical problems we have had with our Customers installing Impermax-

A My Concrete and Mortar is still wet, what should I do ?

You have to wait till the concrete and mortar is dry. New Screed takes about 20-25 days to fully cure and shrink causing cracks, which must be repaired and reinforced. You can use a small "Blow Lamp" to dry the concrete if the dampness is just caused by recent rainfall -but beware of the dangers of a small torch

B What is Negative Pressure?

Negative water pressure is when water from the exterior ground is pushing on the waterproofing from the outside of the membrane. This is quite common and can cause blisters on the surface of the Impermax Waterproofing. The solution is to install "drain "pipes in the ground to drain the ground water away from the walls of the Pond or Swimming Pool. Please check that the surrounding area around your pond is not always wet.

C The temperature is less than 5 degrees C - can I still apply the Impermax?

No, the temperature has to be 5 degrees C and rising.

D I have just started applying the Impermax and it is about to rain -what can I do?

If it starts to rain -please stop the application. If the Impermax has been installed for a more than 15 mins it will only cause small "pin holes " on the surface. When the rain stops you can just add some more Impermax.

E The Geo is Blistered after it has all cured.

This means you either have trapped air under the Geo Polyester Reinforcement, or you have trapped moisture caused by negative pressure or moisture in the Screed. When the resin gets dry sand the surface irregularity, to get it smooth, and apply more Impermax.

F The top coat is sticky.

It is not cured. Wait till it has dried and then wait another 7 days and rinse the surface with water before you add the water and the fish.



HOW TO MAINTAIN YOUR IMPERMAX POND COATING 20 YEARS

Some people say it is easier to build a Koi Fish pond than to maintain it? However if you take care of you pond from the beginning and check for simple defects every year, you can avoid many complications later.

Check the Surface of your Impermax Pond Coating at least once per year.

If you find any pin holes or blisters or tears on the surface repair these immediately. Pond Linings Direct have simple repair kits.

Maintain Equipment and Impermax Pond Coating

Like all capital expenditure -filtration systems, protein skimmers, aeration systems, and the Pond Lining System you have to maintain these every year, and if any simple repairs are necessary then do them quickly and the systems will last many years. The 20 Year Impermax Pond Coating System is just like Flat Roof Waterproofing—You have to have a Maintenance Procedure every year to Protect your Asset.

Constant Water Checks.

Poor water quality can cause fish to suffer.

Avoid Overfeeding

Too much food in the water can result in high ammonium and high nitrate levels in the water.

Maintain the correct Temperature.

Koi can survive during winter months but if you have ice over the surface of the water then make a hole in the surface of the ice to help gas exchange .

For more information, please contact us:

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