

Product Data Sheet

Pondseal

Waterproofing Membrane for Ponds and Water Features

Description

Pondseal is a polyurethane / acrylic co-polymer, water based coating which when fully cured, forms an impervious, flexible and aesthetically pleasing waterproofing membrane which enhances the look of the pond or water feature. It is non-toxic and formulated to be suitable for use with fish and plants. Being liquid applied, Pondseal conforms to any shape and provides seamless 'paint-on' pond liner in a variety of colours.

Uses

Duram Pondseal is used for the waterproofing of ponds, water features, bird baths, fountains and terracotta pots.

Suitable Surfaces

Duram Pondseal is suitable for use on the following sound, stable and properly primed surfaces:- Concrete, cement, cement rendered, brick work and block work, water resistant timber (particle board is excluded) and masonry surfaces.

Additional Uses

Pondseal can be used as a conventional waterproofing membrane but not in internal wet area applications such as shower recesses.

Specification

The information contained in this product data sheet is typical but does not constitute a full specification as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement but the applicator or contractor must use their skill, knowledge and experience to carry out additional works as may be necessary to meet the requirements of the project. Specification for specific projects should be sought from the Company in writing.

Limitations

- The structure must be dry to allow the product to properly cure. If the structure is subject to rising dampness, continual dampness or negative hydrostatic pressure then these problems must be solved prior to using Pondseal as the surface must be dry to enable the product to cure properly.
- If the water is to be treated with chlorine, ensure that levels are maintained at no higher than swimming pool concentrations. High doses of chlorine may 'burn' or degrade the membrane.

Benefits and Advantages

PONDSEAL is:

- a versatile membrane suitable for pond and water feature waterproofing applications.
- Suitable for use with fish and plants.
- is a urethane / acrylic co-polymer providing a strong, tough and flexible waterproofing membrane.
- Does not re-emulsify after proper curing.
- Quick curing.
- Easy to apply.
- Virtually odourless.
- UV resistant.
- Easily recoatable or repairable.

Precautions in Use

The product is considered safe if used correctly as intended and proper industrial hygiene and practices are used. Always observe safety precautions.

Priming and Surface Preparation

Good preparation is essential. Surfaces must be sound, stable, dry, clean and free of dust, loose, flaking, friable material and substances that may diminish adhesion.

Surface should be dry, sound, stable, free of gaps, dirt, dust, algae, fungus and other contaminants.

Construction

When constructing the water retaining structure, 2 ply plastic sheeting should be laid on the ground as a damp course

prior to the laying of the concrete slab. If the structure is below ground the plastic sheeting should be turned up between the walls and the ground. This prevents rising damp and allows the structure to properly dry, which is essential.

The structure should be solid, stable, gap free and ideally have coved corners.

Priming

Prime all surfaces with Duram Primeseal applied at 3m² to 4m² per litre per coat so that the surface has a uniform, solid, off-white appearance. Excessively porous or friable surface should receive at least two priming coats.

Timber Surfaces must be primed with at least 2 coats of Duram Primeseal applied at 3m² to 4 m². per litre per coat. When in doubt apply a second coat of Duram Primeseal as this will enhance the waterproof quality of the system. Allow primers to fully dry before applying Duram Pondeal.

Detailing Preparation

Joins, Gaps and Cracks

General

Joins, gaps and cracks should be suitably filled and sealed with an appropriate elastomeric sealant, preferably a polyurethane sealant, and allowed to cure.

Recommendation: The movement of small cracks should not be underestimated and should be at least covered with a flexible polyurethane sealant or additional coats of membrane.

After priming, as required, lay a strip of Duram Leak-Seal Tape over the join or crack pressing it firmly on to the substrate. The Duram membrane is then applied directly to the Duram Leak-Seal Tape and extending at least 75mm on to the adjacent surfaces.

If the Duram Leak-Seal is not used then a suitable bond breaker tape (such as duct tape) at least 48mm wide should be laid over the join or crack and apply a fully reinforced Duram membrane consisting of a base coat of membrane in to which the reinforcing fabric is embedded, a saturating coat of the Duram membrane ensuring that the fabric is entirely saturated and covered and then allowed to cure. At least one or two further coats are applied as per the Duram membrane's Product Data Sheet extending at least 75mm on to the adjacent surfaces.

If the Duram Leak-Seal is not used then follow the procedure as described under 'Large or Live Cracks'.

Corners

Prime as required.

Apply an adequate flexible polyurethane sealant, in accordance the manufacture's instruction and tool off to form a solid, coved or 45° fillet extending at least 10mm on to the adjacent surfaces. Apply the Duram membrane directly over the sealant and on the adjacent surfaces.

For Additional waterproofing protection the following additional steps should be taken: Lay a strip of Duram Leak-Seal Tape (self-stick, butyl mastic waterproofing membrane with a polyester backed reinforcing fabric) over the cured polyurethane sealant (as described above) pressing it firmly on the surface. Apply the Duram membrane directly over the tape and on the adjacent surfaces.

Outlets and Penetrations

The perimeter of waste outlets and around bases of penetrations should be sealed with a polyurethane sealant and allowed to dry.

Application

Stir well. Apply by brush or roller in coats of about 750 microns (0.75mm thick).

Apply in a minimum of two coats of Duram Pondeal. To perform correctly the dry film thickness of the membrane must be at least 1.2 mm.

Each coat must be fully dry before applying the next.

Reinforcing System

In areas such as corners and over joins and cracks the membrane should be used in conjunction with a reinforcing fabric (Duram Durascrim or fibreglass matting) the application consists of applying a base coat in to which the reinforcing fabric is laid followed by the application of a saturating coat ensuring that the product is worked well in to the fabric and that no wrinkles or bubbles are present and that fabric is entirely saturated and covered with product. Allow to cure. Apply one or two further coats of products.

It is essential that the system should be fully cured before filling with water. Although the membrane will readily cure, it is recommended that the water feature should not be filled within 7 days in good drying conditions. Prematurely filling can cause bubbling, blistering or re-emulsification of the membrane. The membrane will not be waterproof until it has fully cured.

Introducing Fish

Before introducing fish or plants, hose down the surfaces, rinse then fill and treat or age the water as per good practice,

Coverage

The stated average coverage rate may vary depending upon type, condition, porosity, texture of the surface and application technique.

Unreinforced: Minimum for two coats combined is 1.5 litres to 1.75 litres per m².

Reinforced: Minimum for two coats is 2.0 litres per m².

Colours

Pondseal is available in midnight blue, black and sandstone. Dark colours are most popular as they show off the fish, plants and features better than light colours. Special colours are available upon request but minimum quantities will apply. Available in 1, 4 and 15 litres pails.

Drying and Curing

Drying and curing of the product is affected by type, dryness and porosity of the surface, temperature, humidity, ventilation, climate conditions and application technique and therefore drying and curing can only be given as a guide.

Pondseal is a fast drying water based product.

Expected curing at 25°C at 50% RH: Touch dry 4 hours per coat. Recoat 12 to 24 hours. Full cure within 48 but recommended filling after 7 days.

Protect from rain and inclement weather until fully cured. If product is damaged by rain prior to curing, drain water, remove uncured or damaged coating, allow to dry, clean (see preparation), ideally re-prime then re-coat as described in application. Cold, damp and high humid conditions will prolong curing.

Storage

Store in cool, dry area. Product is not flammable. Do not allow to freeze. Shelf life is 6 - 12 months in unopened containers.

Clean Up

Wet spills can be cleaned with water, but spills should be avoided as difficult to remove from porous surfaces.

Tiling, Topping or Top Coating

Usually not tiled or topped but, Pondseal is compatible with most tile adhesives and 3:1 sand : cement beds. Ideally the beds should be sealed / waterproofed to prevent the bed absorbing and holding water. Selection of the tile adhesive should be compatible with the flexibility of the substrate and suitable for immersion in water. Two pack adhesives systems are preferred. Tiling must be done in accordance with AS3958.1-1991 and adequate expansions joints installed.

Safety & Precautions

Pondseal is user friendly and safe to use if used correctly as intended. Nevertheless, protect eyes and skin and observe the safety precautions on the can and data sheet. The use of splash goggles and rubber gloves is recommended.

For full safety data refer to the products Material Safety Data Sheet. Observe precautions as per label.

Issued: 1 May 2012 | Valid to: 31 May 2015

Conditions of Use and Disclaimer

The information contained in this Material Data Sheet is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instructions of the Product Data Sheet in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

Material Safety Data Sheet

Pondseal

Waterproofing Membrane for Ponds and Water Features

Not classified as a hazardous product according to the criteria of Worksafe Australia

Identification

Product Name: Pondseal
Other Names: Duam Pondseal
U.N. Number: N/A
Class: N/A
Hazchem: N/A
Code:
Poison: N/A
Schedule:
Pack Sizes: 1, 4, & 15 lt. pails

Physical Description

Appearance: Coloured thixotropic viscous creamy liquid
Boiling Point: +- 100°C - as for water.
Vapour Pressure: As for water.
Percent Volatiles: +- 45%
Specific Gravity: 1.05 - 1.1 (+- 20°C)
Flash Point: N/A (Water Based)
Flammability: N/A (Water Based)
Water Solubility: Soluble / Miscible (will re-emulsify when uncured)

Ingredients

Chemical	CAS No.	Proportion
Aqueous Urethane	Proprietary	< 25%
Minor Ingredients	N/A	< 3%
Water	N/A	< 40%
Inert Fillers	N/A	< 40%
Butyl-styrene copolymer	Proprietary	< 40%
Butyl acrylate-styrene copolymer	Proprietary	< 40%
Polypropylene Fibres	N/A	< 3%
Pigments	N/A	< 5%

Uses:

Pondseal has been specifically formulated for the waterproofing of ponds, water features, fountains and water retaining structures.

Health Warning Information

Health Effects

Swallowed: Material is regarded as low oral toxicity and swallowing is unlikely. Irritating, possible nausea - will affect digestive tract if swallowed in volume with possible abdominal irritation, pain, and vomiting.

Eye: Prolonged or repeated contact may result in irritation, discomfort or may cause mild temporary redness of the conjunctiva, temporary vision impairment and possible damage.

Skin: Adverse effects are not expected from single contact. Prolonged and repeated contact may be mildly irritating and may result in dermatitis. Avoid exposure to skin that is cut, damaged or irritated.

Inhaled: Irritating - may cause nausea with prolonged contact. Inhalation unlikely due to viscosity and non volatility of the product. Vapours (predominantly water) may be occur at higher than normal temperatures. Inhalation over-exposure is not expected at ambient temperatures.

Chronic: Effects are not known.

CHRONIC HEALTH EFFECTS

Prolonged contact or continuous long term working in confined and poorly ventilated areas may cause irritation response, sore, eyes, nose and possible headache and dermatitis.

Avoid contact with unprotected skin, inhalation of vapour or ingestion. Observe good occupational work practices.

First Aid

Swallowed: Do not induce vomiting. Rinse mouth and give plenty of water to drink. Seek medical assistance or contact the Poisons information Service (Australia 121126 and New Zealand 03 4747000).

Eye: Flush thoroughly with clean water, holding eye lid open to flush product from under the lid. Removal of contact lens after injury should be done by a skilled or medical person.

Skin: Remove contaminated clothing, and wash with soap and water.

Inhaled: Product is water based. Treat for drowning. Remove person to fresh air and perform artificial respiration if required and seek urgent medical assistance. If fumes are inhaled, remove to fresh air, lay patient down, keep warm and rested. This is usually sufficient.

Advice to Doctor

Treat symptomatically.

Precautions in Use

Product is considered low risk.

Exposure Standards

Non assigned. Refer to individual constituents.

S.B.R. Latex: Non assigned, refer to individual constituents. On average residual traces - TWA 50 ppm (213 mg/m³).

Residual traces - Ammonium hydroxide- as ammonia.

ES TWA: 25ppm, 17mg/m³, STEL: 35ppm, 24mg/m³.

TLVTWA: 25ppm, 17mg/m³, STEL: 35ppm, 24 mg/m³.

ENGINEERING CONTROLS

Ensure area is well ventilated to maintain air concentrations below exposure stated. General exhaust is adequate under normal operating conditions.

Exposure Limits

Refer above.

Ventilation

Product should be applied in areas with adequate ventilation.

Personal Protection

Gloves: Rubber or PVC. Do not use solvent to clean the skin.

Eyes: Safety goggles. The wearing of contact lenses poses an additional risk. Soft lenses may absorb irritants and all lenses concentrates them.

Feet: Wear safety footwear.

Safe Handling Information

Storage and Transport

Not classified as a dangerous material for storage and handling.

Store in cool, dry area and place out of the reach of children. Product is not flammable. Avoid freezing.

Suitable containers: Plastic pails as recommended by manufacturer.

Check containers are labeled and not damaged.

Handle in accordance with good industrial hygiene and safety practice.

Storage incompatibility: None known.

GENERAL:

Wash hands before eating and observe usual precautions for chemical handling. Avoid contact with eyes and skin.

Transportation Restrictions: None.

Spills and Disposal

Prevent spills from entering the drains or sewers. Absorb product with sand or earth or absorbent material and dispose to land fill in accordance with local council regulations or incinerated. Small spills can be flushed with water for effluent treatment only. Product will dry and become inert.

Major spills unlikely due to individual size of containers.

Fire / Explosion Hazard

N/A - product is not combustible.

No decomposition if correctly stored and handled.

No Hazchem Code has been allocated.

Issued: 1 May 2012 | Valid to: 31 May 2015

Conditions of Use and Disclaimer

The information contained in this Material Data Sheet is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instructions of the Product Data Sheet in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

