



Crystalcoat

Crystalline Waterproofing Membrane

Features

- ▶ CRYSTALLINE
- ▶ NEGATIVE WATERPROOFING
- ▶ GREEN CONCRETE
- ▶ NO PRIMING
- ▶ COROSION PROTECTION
- ▶ BELOW GROUND
- ▶ SEALS MINOR CRACKS
- ▶ NO HARMFUL VAPOURS
- ▶ EASY TO USE
- ▶ NON TOXIC

www.pasco.net.au

Product Description

Pasco **Crystalcoat** is a unique crystalline cementitious membrane used for the protection against concrete corrosion and waterproofing both negative and positive by crystallisation. Manufactured in the form of a dry powder, **Crystalcoat** protects and waterproofs concrete by the process of osmosis. The crystalline formation migrates throughout the pores and through capillary action sealing the concrete against intrusion of water, chemicals, sewage and other harmful chemicals.

The active chemicals in **Crystalcoat** penetrate the concrete and react with free lime and moisture to form a subsurface membrane effectively sealing the concrete. The layer formed allows the passage of water vapour from the inside of the structure whilst waterproofing/sealing the surface against sea water, aggressive ground waters, wastewater and certain chemical solutions.

Features & Benefits

Crystalcoat can be applied to all structurally sound concrete, water tanks, tunnels, manholes, underground structures, foundations, planter boxes and swimming pools. Crystalcoat provides concrete protection against waste water, sewage, carbonation, salt water, sulphates, and other harmful materials.

Uses

- Protects concrete and steel rebar from deterioration.
- Non-toxic
- No solvents. No harmful vapours.
- Can apply to green or moist concrete.
- Seals minor shrinkage cracks up to 0.5 mm and will reactivate after many years in the presence of water.
- Does not require costly surface priming or leveling prior to application
- Use in underground structures from the negative side.
- Extensively used for concrete repair work and is particularly useful to apply on the negative side of water retaining or underground structures both above and below grade.

Substrate Preparation

Concrete surfaces to be treated must be clean and free of laitance, dirt, films, paint, coatings, or other foreign matter. The surfaces must also have an open capillary system for the Crystalcoat treatment. If surfaces are too smooth the concrete should be acid etched, lightly sandblasted or water blasted prior to application.

Wetting Concrete

Prior to the application of Crystalcoat, concrete surfaces must be thoroughly wetted with clean water (concrete should be saturated) to aid the proper curing of the treatment and ensure the growth of the crystalline formation deep within the pores of the concrete. Excess ponding surface water should be removed before the application.

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Mixing

Scratch Coat:

Mix one 20 kg bag with 6.5 -7.0 litres of clean water.

Body Coat:

Mix one 20 kg bag with 4.5 -5.5 litres of clean water.

Do not mix too wet otherwise, coating may crack or spall when drying. Always add powder to water. Mix until smooth and lump free. Do not rework stiff material by adding more water. Mix sufficient material to use within 30 minutes.

Consumption Rates

7 fngHUVt Uh must be uniformly applied under the conditions and quantities specified. When a second coat is required, it should be applied after the first coat has reached an initial set but is still "green" (less than 48 hrs.). Light pre-watering between coats may be required due to drying. For best results, application should take place at temperatures above 40C. Use as single coating on above or below grade concrete, or as the first of a two coat application where two coats are required.

Also use as a Dry-Pac for sealing strips (fillets) at construction joints, and for repair of cracks, faulty construction joints and honeycombing and as dry shake on fresh concrete or on lean concrete under slabs. As a general rule, it may be taken that for a two-coat slurry application, the rate of use of **7 fngHUVt Uh** should be between 0.5 kg and 0.75 per square meter per coat. As a minimum one coat may be applied at 0.8-1 kg/m².

Backfilled Concrete Surfaces, Internal Walls & Water Retaining Structures:

- 2 coats applied at 0.75 kg/m² per coat by brush or spray or 1 coat at 1 kg/m².

Backfilled Concrete Surfaces with Hydrostatic Pressure:

- 2 coats at 0.75-1 kg/m²/coat or one coat at 1 kg/m². Keep moist for 3-4 days after applications.

Construction Joints:

- 1.5 kg/m² applied in slurry coat or dry powder consistency just before pouring concrete.

Blinding Concrete:

- 1.2 kg/m² applied in slurry coat or dry powder consistency just before placing overlying concrete slab.

Application

Slurry coat:

Apply **7 fngHUVt Uh** with a brush or roller. Apply well into the damp wall filling all pores and finish with final strokes in one direction. Keep a wet edge. After the first coat has set but while it is still green apply a second coat, if this is not possible pre-dampen before application of the second coat.

Existing Joints:

Construction joints, cold joints and non-leaking joints greater than 0.25 mm wide must be routed out to a minimum 25 mm wide by 25 mm in depth to reach sound concrete, the profile of the routed joint should form a "U" shape.

5ei Ud'i [should be mixed with water to provide a dry pack material which must then be rammed into the routed out joint.

Leaking Cracks:

Should be prepared as above to form a chase of 25mm wide to approximately 35 to 50 mm deep. Remove all debris from the work area before proceeding with thorough saturation of the area prior to the next stage of the works.

Dry pack **7 fngHUVt Uh** Mortar into the prepared rout. The **7 fngHUVt Uh** treatment should be applied with a semi-stiff bristle brush, broom (for large horizontal applications) or with specialised spray equipment.

Curing

Crystalcoat should be protected against evaporation. Careful mist spraying of water should be undertaken to keep the surface damp.

Fresh surfaces should be protected from rain for 24 hours & frost for 5 days. In deep pits & enclosed areas air circulation should be provided for 24 hours following treatment. Moisture cure **Crystalcoat** treated surfaces 3-4 times per day for a period of 2 days starting with fine water fog spraying the day following the completion of **Crystalcoat** applications.

Backfill material can be placed on **Crystalcoat** after moisture curing has been completed, Pasco Aquaboard protection board is required.

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Overcoating

All **Crystalcoat** treated surfaces to receive epoxy coating or to be painted must be neutralized. The **Crystalcoat** application has to be aged for a minimum period of two weeks before application of an epoxy coating.

Water Retaining Structures

For concrete water retaining structures (e.g. reservoirs, tanks, etc.), **Crystalcoat** should be cured for two days and then allowed to set for 12 days before filling with water. Allow at least 48 hours before foot traffic.

For **Crystalcoat** to fully activate may require 2-4 weeks after application.

Finish

Crystalcoat is not a decorative finish. Discolourations of the treated surfaces may occur. This may be as a result of chemical reactions between **Crystalcoat** and the concrete or water. These discolourations do not reduce in anyway the waterproofing effect.

Limitations

- Crystalcoat must be cured as per the instructions.
- It is not a decorative coating.
- Do not immerse in water retaining structures until 14 days
- Allow at least 48 hours to cure before subjecting to foot traffic.
- Protect against drying out.
- To fully activate the material may require 2-4 weeks.
- If high hydrostatic pressure is anticipated consult Pasco
- Do not apply to dry surfaces.

Storage & Shelf Life

Store in dry conditions out of sun. Shelf life up to 12 months stored properly in original unopened packaging. Shelf life may be shortened at high humidity or temperatures.

First Aid

If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766). If medical advice is needed, have product container or label at hand.

SWALLOWED: If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical advice. **EYE:** If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor. **SKIN:** If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If irritation occurs seek medical advice.

INHALED: Remove from contaminated area. Apply artificial respiration if not breathing. Seek medical advice.

Safety

Keep out of reach of children. Read carefully and follow all instructions. Avoid breathing dust or fume. Wash hands, face and all exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing including eye/face protection.

Fire

If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Spills & Leaks

Clear area of all unprotected personnel. Slippery when spilt. Wear protective equipment. Absorb with sand or soil. Collect and seal in properly labelled drums. Dispose of contents/container in accordance with local, regional, national and international regulations.

Pasco Construction Solutions Pty Ltd offers its' products for sale, subject to its standard terms and conditions of sale, which are available upon request. All endeavors have been made to ensure the information provided in this technical data sheet is accurate and correct, however as the use of this material is beyond the supplier's control, liability is limited to replacement of material proven faulty. It is the responsibility of the purchaser to ensure that the product is suitable for the specific application and that it is applied in accordance with the supplier's recommendations.



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