

G4 POND SEAL

Seals Concrete Floors

G4 Pond Seal is a moisture-cured polyurethane, which forms a non-porous seal on concrete, brick or porous stone. G4 uses the moisture in the air and substrate to cure or harden. It can be applied onto slightly damp substrates. However, it is important that the substrate is sufficiently dry to be porous so as to enable the first coat of G4 to bond and obtain a mechanical grip. G4 can be applied in poor weather conditions, high humidity and at temperatures down to 0°C.

G4 seals out lime.

G4 is available in standard (brownish translucent) - Mid Green - Black.

Construction - Materials

As a general rule the pond should be constructed to be structurally sound since the G4 only provides the waterproof seal. On no account use a P.V.A. based sealer to seal or prime any surfaces. These materials can contain ammonia.

Blockwork

Ponds will normally be constructed with either brick, lightweight block or concrete block. With block work it is necessary to apply a cement render since the surface is too open and absorbent to seal with G4. It is not necessary to add waterproofing agents to the render mix when G4 is being applied since they increase the density of the render and can inhibit penetration of the G4. However, in practice, it is known that G4 performs well on renders containing waterproofing agents. Fibre Mesh can be used to increase the strength. It is necessary that the fibres are either burnt or sanded off prior to coating with G4 as some will project from the render and can act as a wick, since G4 will not bond to the fibres, which can result in a general leakage. It is also necessary to remove them since the fibres will also damage the scales of the fish. The cement render should be trowelled to an even surface but not to a smooth dense plaster like finish since this prevents the penetration of G4.

Bear in mind that a half-inch render should be kept damp for 3 days. New render should be allowed to harden for 21-28 days depending on conditions.

Brickwork

G4 is an excellent sealer for brickwork - but below the waterline the brick should also be rendered. The reason is that while the G4 is able to seal hairline cracks it is not capable of bridging larger joints, cracks or holes.

Method Of Application

1. Ensure the concrete render is dry, (see earlier section) certainly dry enough to be porous.
2. If an old pond, repair any cracks or replace damaged areas, and allow repairs to dry.
3. Ensure surface is clean, any algae is removed, brush off dust and remove loose material.
4. Consumption figures are given in a separate section.

Repairing Cracks In Concrete

A normal cement render mix can be made or there are rapid hardening cements that can be used. When using cements to repair remember that it must be allowed to dry out properly before application of the G4 coating.

Alternatively G4 can be used to make an extremely tough repair. Chase out any cracks to provide a reasonable area to fill. Prime with G4 and wait until finger tacky. Mix 6 parts dry fine sharp sand with 1 part G4 (by volume) in a mortar, as dry as possible, consistent with trowelling and using a putty knife or spatula, grout the mix into the crack, leave level. Do not apply in layers thicker than 1 mm at a time, if necessary build up layer by layer; leaving a minimum of 8 hours between each application. Very narrow, hairline cracks can be sealed with G4 prior to general application.

Other Materials

G4 cannot be used to seal over bitumen, P.V.C. or Butyl Rubber linings. It will not bond to the P.V.C. or Butyl Rubber although it will not attack them.

G4 Standard

Apply first coat of G4 by brush - a roller can be used but it is necessary to avoid puddling of the G4 on the base. It is best to use a brush. Allow first coat to become finger tacky (like cello tape) or dry enough to walk carefully upon - approximately 45-60 minutes depending on humidity - then apply 2nd coat. When 2nd coat is finger tacky apply 3rd coat. No longer than 4 hours should elapse between coats.

Normally 3 coats of G4 Standard are sufficient to build a continuous surface film but on very porous substrates a 4th coat may be required, apply as instructed above.

If rain is expected make provision for covering the coated area, since water can damage the G4 during the curing process. As soon as it is superficially dry, water should not affect G4.

G4 - Colours

The system is slightly different. When using coloured G4 the first two coats must be G4 standard. This is because G4 standard provides the maximum non-porous seal and adhesion. Follow the application instructions as detailed earlier but the last two coats will be G4 coloured.

G4 - Cure (Hardening)

G4 is mechanically hard after 24 hours and walkable on some 6 hours after final application. However, 72 hours must elapse for full chemical cure, before washing down the G4 with copious amounts of clean water. This water should be drained off. The pool can then be filled.

Consumption

Consumption will vary slightly according to the porosity of the substrate. The coverage is based on practical experience gained from many users.

G4 Standard - 3 coats = 550 grs/sqm (for the 3 coats)

G4 Coloured System = 1st and 2nd coats G4 standard = 410 gr/sqm (for the 2 coats)

3rd and 4th coats G4 coloured = 400 gr/sqm (for the 2 coats)

Waterfalls

G4 is used to seal waterfalls and from the practical experience of customers it performs satisfactorily. It is advised that the base of the waterfall is rendered. When dry, apply 3 coats of G4 Pond Seal and allow to harden. The ornamental stone can then be 'bedded in' and grouted. If using a liner on the base, before rendering, then additional time must be allowed for the render to dry, since the render can only dry from the surface.

Pipe work and Fittings

Pipe work and fittings for ponds are usually in stainless steel, PVC or uPVC (unplasticized PVC). Normally uPVC is used for groundwork pipes. Sealing around the pipes in cement rendered pond can be a problem due mainly to the shrinkage of the cement and lack of adhesion to plastic. Normally a mastic is used but some care needs to be taken with silicone based mastics since the G4 may not bond to silicone mastics.

It is preferable to use a moisture cured polyurethane mastic sealant such as Bondaflex PU. Alternatively a fibreglass collar can be laminated around pipe work to provide a seal before the G4 is applied.

Before using the user shall determine the suitability of the product for the intended use. This information is offered in good faith but without guarantee or liability.