

Pile Cap Sealer

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Description

Visqueen Pile Cap Sealer is a grey cementitious compound containing Portland cement, specially treated quartz sand and a compound of active chemicals.

When applied to a concrete surface, the active chemicals react with the free lime and moisture within the concrete to form in depth, insoluble crystals which fill and block all capillaries, fissures, pores and minor cracks within the concrete. This effectively makes the concrete watertight for the lifetime of the structure. The 25 kilo Pile Cap Sealer buckets are supplied in powder form.

Application

Visqueen Pile Cap Sealer is a specialised formulation for use within ground pile caps. The system can be used in basements as described in BS8102:2009 for:

- Grade 1 – car parking
- Grade 2 – plant rooms, garages and workshops
- Grade 3 – residential (living areas) and commercial applications

Pile Cap system components

- Visqueen Pile Cap Sealer
- Visqueen VX90 Waterstop – for 90° internal angles and seal around pipe penetrations including pile caps
- Visqueen Waterstop Mastic – secures VX Waterstops in vertical and pile cap applications

Storage and Handling

Store unopened in a warm - above 5°C - and dry environment. Shelf life 24 months
 Protect eyes and skin from contact. Freshly mixed Visqueen Pile Cap Sealer is alkaline, the use of suitable gloves and eye protection is recommended.

A full MSDS is available at www.visqueenbuilding.co.uk

GENERAL

All construction should conform to the Building Regulations, Codes of Practice and British Standards in current use at the time the building is being constructed. In particular it is recommended that reference is made to BS 8102: 2009.

The confining concrete must be placed within 5 days of installation of the waterstop profile.

PREPARATION and POST APPLICATION

The surface MUST present an open capillary structure to allow penetration of the crystalline chemicals.

24 hours prior to application surfaces must be porous and wet - sprinkle with water where required.

Ensure the product is well ventilated for at least 3 days. Protect the coating against excessive fast evaporation in hot conditions or drying winds by mist spraying regularly.

Mixing ratio and application information

Please do not pour the water into the powder. The powder is added into a bucket of water at the ratios stated below.

Visqueen Pile Cap Sealer should be mixed with water at the following ratio by volume:

- 4 parts Visqueen Pile Cap Sealer

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- 1 part clean water

For Example, one 25 kilo tub of Pile Cap Sealer requires c.6 litres of water,

It is important not to mix more material than can be applied within 30 minutes at 20°C, or less in hot temperatures. Pour the required amount of water into a clean bucket and add the powder slowly, **mechanically** mixing to a smooth lump-free consistency. If the mixed materials becomes stiff, do not re-mix with water, but discard and prepare fresh material.

Pile cap sealing – High Risk

- Clean surface by means of jet wash, grit blasting or scabbling.
- Apply Visqueen Pile Cap Sealer to the full area of the pile cap including 100mm vertically:
Mechanically mix Visqueen Pile Cap Sealer at an approximate ratio of 4:1 with clean water by volume by adding the **powder into the water**.
Coverage rate is 1.5kg/m². This can be achieved by applying one coat or two (2 x 0.75 kg/m²). The second coat should be applied whilst the first coat is still green.
- Roll out Visqueen Pre Applied Membrane to the base of the ground pile cap. Do not cover the pile cap with the membrane.
- Ensure the product is well ventilated for at least 3 days. Protect the coating against excessive fast evaporation in hot conditions or drying winds by mist spraying regularly.
- Apply Visqueen Waterstop Mastic to the vertical and horizontal as per detail.
- Place Visqueen VX90 Waterstop securely and press firmly around the full circumference of the pile cap. Butt joint and knead lengths together to form a continuous layer.

Usage information

In order to obtain the required quantity of Visqueen Pile Cap Sealer we have compiled below a usage guideline.

1 tub of Pile Cap Sealer covers c.16m² therefore one 25 kilo tub of Visqueen Pile Cap Sealer will waterproof the following amount of piles:

300mm diameter pile caps: 100 piles
 450mm diameter pile caps: 66 piles
 500mm diameter pile caps: 47 piles
 600mm diameter pile caps: 35 piles

Visqueen Waterstop Mastic coverage

As a guideline Visqueen recommend a 2mm thick layer therefore for every 1m length equates to 200 grams of Visqueen Waterstop Mastic. By using this calculation, one tub of 10 kilos will cover (see detail for area covered) the following amount of piles:

300mm diameter = 53 piles
 450mm diameter = 35 piles
 500mm diameter = 32 piles
 600mm diameter = 27 piles

Please note the above usage rates are for guideline purposes only and are based on the exact coverage rates. Please allow for some wastage.



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Product Data

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Characteristic	Result
Tub quantity	25 kg
Coverage rate in 2 coats	1.5 kg/m ²
2 coat thickness	2.5mm
Compressive strength (cured)	84.5N/mm ² (MPa)
Waterproofing	Resists >7 bar pressure
Maximum penetration depth*	25mm
Application temperature	5 to 35oC

*depending on substrate porosity



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Appendix A

About Visqueen

Visqueen is the market leader in the manufacture and supply of structural waterproofing and gas protection systems. Visqueen offers the complete package – a proven, reliable range backed by a technical support service that goes unmatched in the market - everything you would expect from a reputable and ethical company.

Complete Range, Complete Solution

- Structural Waterproofing
- Damp Proof Course
- Damp Proof Membranes
- Gas Protection and Gas Venting
- Vapour Control Layers
- Stormwater Protection

Download Library

- Technical Datasheet
- Standard Details
- Technical Service
- Visqueen Gas Protection Brochure
- NBS Clauses
- BBA Certificates
- Material Safety Datasheets
- Specification Guide

Find your local stockist

Search our directory of Visqueen specification [Specialist Centres](#) to locate your nearest Visqueen Partner.

Technical support throughout your project

We are specialists in our field and can help you specify the correct solutions with the necessary performance levels, in accordance with building regulations.

- Nationwide site support team
- Specification advice
- Installation guidance & project sign off
- System design including CAD details

CPD Seminars and Training Academy



Gas Protection CPD

The specification, technical design, and installation of gas protection systems, enabling the sustainable regeneration of brownfield sites.



Structural Waterproofing CPD

The specification, technical design, and installation of structural waterproofing systems for protection against water and damp ingress in both above and below ground projects.



Visqueen Training Academy

We are now able to offer exclusive in depth training opportunities on a wide variety of Visqueen products at our Training Academy.



Visqueen Special Projects

We provide high-level expertise, comprehensive support and experience in all types of waterproofing and gas protection.



Part of RPC bpi group

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