

FlexSEAL AC100

Acrylic Cementitious Highly Flexible Waterproofing Membrane

Description

A highly flexible waterproofing liquid membrane suitable for use on concrete, masonry and wooden substrates in numerous applications where an effective barrier to water ingress is required. On difficult mineral substrates such as concrete the membrane provides crack bridging performance as well as a tenacious bond essential in maintaining water tightness.

FLEXSEAL is a two component product comprising of a powder and liquid component representing the next generation of cementitious polymer composites. The liquid component is a blend of highly durable and flexible polymers. The powder component is a blend of special cements, finely graded fillers and active chemicals.

When mixed Flexseal is in the form of an easy to use slurry that is quickly and effortlessly applied. Flexseals liquid nature allows application in difficult to reach areas such as corners and recesses. Being a water based product no harmful odors or toxic vapors are liberated thus making it an ideal choice for confined areas.

On curing the membrane is an effective barrier to water, harmful salt solutions and atmospheric gases. The membrane is non-toxic and suitable for use in contact with potable water as well as some commonly used aggressive chemicals.

The membrane is ideal for use for tank linings or under tile and screed waterproofing and is both suitable for internal and external use. The membrane may be used with or without special finishes and is resistant to the harmful effects of weathering and UV radiation. FLEXSEAL is normally applied as a two coat system at a thickness of 1mm and above.

Colours

FLEXSEAL is normally supplied as a light grey colour. Other shades of grey are available as well as a limited range of attractive colours by special request.

Benefits

- Resistant to water pressure up to 7 bar making it suitable for use in both water retaining and water excluding structures.
- Crack bridging of cracks up to 2mm ensures the membrane deflects dynamically with the structure maintaining waterproofing performance.
- The polymer composition of the membrane has very high bond strength to most construction material providing a long lasting durable seal against the effects of water penetration.

- The membrane is both UV and weather resistant making it suitable for external situations where a durable long lasting seal against water penetration is required
- Non-Toxicity of Flexseal makes it suitable for use in tanks or areas where potable grade water is stored.
- Odorless, liquid nature makes application both easy and safe in difficult confined areas.

Areas of use

- Waterproofing of bathrooms and Wet Areas
- Water Storage Tanks
- Swimming pools
- Flat Roofs
- Basement Walls
- Planter Boxes
- Tunnels
- Retaining Walls and Foundations
- Plaza Decks
- Balconies

Technical Information

Minimum thickness/Coat	0.25 mm
Working time per unit	60-90 minutes.
Tack free Time	45 mins
Light traffic	24 hours
Full loading	28 days
Tensile strength ASTM D412	2.5 N/mm ²
Elongation @ Break	>150%
Bond strength ASTM D4541	>0.75N/mm ²
Crack Bridging ASTM C836	>5mm Gap
Water Penetration DIN1048 leakage	7 Bar No
Water Vapour Permeability ASTM E96	<u>11.00g/m²@24hrs</u>
Hardness Shore A	65

Coverage

Coverage depends on the nature, surface profile and porosity of the substrate, below are approx. values to act as a guide in calculating material consumption.

1mm	coating will require 1.5kg/m ²
2mm	coating will require 3.0kg./m ²

A normal typical two coat application will consume between 2 to 2.5 kg/m²

Packaging

FLEXSEAL AC100 Liquid is supplied as 20kg in a Plastic Pail

FLEXSEAL AC100 Powder is supplied as 20kg in a 3-ply paper sack.



Shelf Life

Up to 1 year from date of manufacture when stored in original unopened containers in a cool dry place.

Installation Method

Preparation

Flexseal AC100 should be applied to a clean substrate free of contamination from oils, grease, dust, etc. All surface contamination should be removed prior to application by using mechanical means or chemical degreasing agents. Surfaces should be sound and non dusting. Weak friable surfaces may need to be repaired with a suitable repair product or a suitable pretreatment prior to the membrane installation.

Cracks greater than 1mm should be clean and cut to form a V-cut, then filled by using mixed Flexseal AC100 and 50mm reinforcing scrim applied over the crack length.

Priming

For very porous substrates it may be necessary to first seal the substrate this can be achieved by diluting Flexseal AC100 liquid with water in the ratio of 3 parts clean water to 1 part of Flexseal liquid by volume. Apply by stiff brush or short hair roller and allow to dry at least 40 minutes before application of FLEXSEAL AC100 membrane.

For external applications or normal mineral substrates pre-wetting with water is required before installation of the membrane. Pre-wet until the substrates will not accept any more water and a damp appearance is visible. Do not allow the water to pond, ponded water should be removed prior to membrane application.

Apply the membrane immediately after prewetting, if areas dry out than apply more water to return the surface to the prewetted state.

Mixing

FLEXSEAL AC100 liquid waterproofing membrane is supplied in ready mixed quantities that require only on site mixing. In a large clean container add all the liquid component and slowly add the powder component while mixing. Continue mixing until all the powder is added and a lump-free, smooth free flowing slurry is achieved. On no account should additional water be added to the product as this will effect the performance of the applied membrane. Where possible mechanical mixing is recommended as this will yield the best results. This should be done by using a slow speed mixer 200-600rpm ensuring not to mix in too much air and mix until an homogenous mix is achieved.

For smaller quantities FLEXSEAL AC100 may be mixed in the ratio of 1 part of liquid to 1 part of powder by weight.

General Application Guidelines

Pour the mixed Flexseal AC100 liquid membrane on to the prepared substrate. The membrane may be spread out with a comb, serrated trowel or squeegee to the required rate. Finish the membrane by back rolling with a short haired roller. Normally a minimum of 2 coats should be applied perpendicular to each other.

If using reinforcing scrim this should be embedded in the first coat and pressed down with a split steel or nylon roller to allow wetting of the fibre in the liquid membrane.

When applying the membrane outside protection should be provided from strong sunlight or winds to limit the membrane from drying to quickly.

Following application the membrane should be allowed to cure at least 24 hour before applying further coats or allowing access to applied areas.

Curing

Allow to cure between coats and provide sufficient ventilation and a temperature above 20°C. A minimum of 24 hours should be allowed before opening to light foot traffic. Full cure is achieved after 28 days.

Subsequent Finishes

Flexseal AC100 is compatible with a most finishing systems such as emulsion paints, concrete screeds or mortars, tile or other non solvated adhesives. It is not recommended to apply oil or solvent based finishes over Flexseal AC100 if in doubt over a particular finish then consult APT technical services.

Cleaning Equipment

Clean equipment and tools immediately after use using clean soapy water. If allowed to dry use APT Cleaning Solvent.

Safety Precautions

Under normal working practices APT products are safe to handle and use, but as with all chemical products special precautions should be taken during their handling and use. Where possible, working areas should be well ventilated by providing addition ventilation if required. In poorly ventilated areas vapor protection masks may be necessary. The working area or materials should not be exposed to naked flames, or excessive heat, absolutely no smoking should be allowed in or around the working area. Avoid contact with the skin and eyes, wear suitable protective clothing and barrier creams on exposed parts. Splashes to the skin should be washed off immediately with soapy water do not use solvents. Splashes to the eyes should be rinsed immediately with plenty of water and seek medical advice. For complete information on the nature, handling and use please refer to the current material health and safety data sheet

Storage

Store in dry condition out of direct sunlight between 20 to 40°C

All products should be used in accordance with the manufacturers' instructions. No responsibility can be taken by the manufacturers where conditions of use are beyond our control. APT products are available for sale in accordance with APT Standard Conditions of Sale which are available on request. Whilst any information and/or contained herein is to the best of our knowledge, true and accurate, no warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, Agents or Distributors as the conditions of use and any labour involved are beyond our control. APT Technical Data Sheets are updated on a regular basis. To ensure this Technical Data Sheet has not been superceded please contact us. It is the reader's responsibility to obtain the most up-to-date Technical Data sheet available.

All Aspects Insulation Materials

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