



BITUPROTEK EMULSION

HIGH BUILD SBS POLYMER MODIFIED BITUMEN EMULSION WATERPROOF COATING

PRODUCT DESCRIPTION

SmartCare BituProtek Emulsion is a high performance superior quality protective bitumen emulsion waterproof coating for concrete which requires high level of protection from ingress of moisture. The coating manufactured using a blend of high quality bitumen compound, selected mineral fillers and further modified with selected high grade of latex (SBS) polymers. The coating dries off to form a tough, durable and highly flexible impermeable membrane.

USES

Ideally suitable for application as a protective waterproof coating against ingress of moisture and vapour in the following areas:

- Building facades damp proofing prior to cladding.
- Concrete foundations which are above the water table.
- Block works.
- Vapor barrier damp proof membrane in sandwich panel construction.
- Also used as a curing compound on freshly cast concrete structures.
- Planter boxes.

CHARACTERISTICS / ADVANTAGES

- Easy to apply. Cold applied. No additional heating is required.
- Good adhesion on most substrates.
- VOC free. No health or environmental hazard.
- Odorless. Safe to apply in poorly ventilated or confined areas.
- Highly thixotropic. Can be applied at high thickness on vertical surfaces without any sag or flow.
- Good resistant to soil chemicals like chlorides and sulphates.
- Non- flammable.
- Conforms to ASTM D 1227, Type III, Class 1.

PRODUCT DATA FORM

APPEARANCE/COLOUR

Dark Brown Colour, SBS modified bitumen emulsion

PACKAGING

20 litres and 200 Litres

STORAGE CONDITIONS / SHELF-LIFE

Container packs should always be stored in dry and shaded areas. The product should not be kept exposed to direct sunlight and should not be kept near to any source of heat. The shelf life is 24 months if stored as per recommendations. Failure to comply with the recommended storage conditions may result in premature deterioration of the product.

HANDLING PRECAUTIONS

Product is VOC free. Hence, it is non-hazardous to health and environment. However, as a precautionary measure and to avoid sticking of the bitumen to hands & skin, it is recommended to use gloves and safety goggles. In case of contact with human skin wash the affected area with plenty of fresh water immediately. Seek medical assistance immediately in case of any allergy or criticality.

TECHNICAL DATA

CHEMICAL PROPERTIES Chemical Base: SBS latex modified bitumen emulsion

MECHANICAL AND PHYSICAL PROPERTIES

Properties	Values	Test Standards
Form	Viscous Liquid	-
Colour	Dark Brown	-
Density @ 25°C, g/cc	1.05 ± 0.02	ASTM D 1475
Solid Content,% approx.	40± 5	ASTM D 2939
Rubber content, %	>5	-
Elongation. %	>50	ASTM D 412
Drying Time @ 25°C	1 hour	-
Service Temperature	-5°C to +85°C	-

APPLICATION CONDITIONS

SUBSTRATE TEMP + 5 to + 50 °C

AMBIENT TEMP + 5 to + 50 °C

APPLICATION DETAILS

SUBSTRATE QUALITY AND PREPARATION

The performance and ultimately the durability of the coating largely depends on the condition of the substrate on which it is coated on. Therefore, conditioning and preparation of the substrate is of utmost importance prior to the application of the coating.

- Inspect the surface conditions.
 - Surface should be levelled, tough and should not have defects like hollow areas or pot holes.
 - Check hollowness by hammering and repair such areas as well as pot holes using polymer modified cement sand mortar or appropriate concrete repair mortar.
 - Allow to cure for at least 72 hour before application of membrane
- Clean the surface thoroughly so that it is free from loose dust, particles, laitance, oil etc.

COVERAGE RATE

Moisture vapour barrier coating for building facades

4 m²/l per coat (DFT of 100 microns)

DAMP ROOFING OF BLOCK WORK AND CONCRETE FOUNDATIONS

1 m²/l per coat (DFT of 350 microns)

CURING COMPOUND ON CONCRETE

5 m²/l

APPLICATION METHOD / TOOLS

- Apply SmartCare BituProtek Emulsion directly on a new concrete without any primer coat.
- It is highly recommended to apply a priming coat on all old and highly porous substrates for improving the adhesion of the subsequent coats.
- Primer coat can be prepared in the work site by diluting SmartCare BituProtek emulsion with 20% by volume clean potable water. The diluted coating shall then be mixed thoroughly ensuring homogeneity of the mix.
- Primer application can be done by a brush or roller. On large areas the application may be done by an airless spray gun.
- Applied primer needs to be allowed to dry before application of subsequent coats.
The primed area shall be re-primed, if there is a delay in the application of the topcoat for more than 24 hours
- **SmartCare BituProtek Emulsion** application as topcoat is done by brush or roller. Large area application may be done by airless spray gun. Note, when applying by airless spray gun the emulsion coating needs to be diluted appropriately for proper application.
- The coating shall be applied in a minimum of 2 coats for optimum performance.
- Coverage will vary depending on the area of application and the nature of protection required. The coverage rate varies from 1 m²/l per coat (to achieve a 350 microns DFT used as the vapour barrier protection coating on concrete foundations) to 4 m²/l per coat (to achieve a 100 microns DFT used as moisture barrier coating on building facades).
- When applying multiple coats, all subsequent coats shall be applied when the previous coat has dried off completely.
- As the coating is bitumen based, it is extremely important to protect the applied coating especially on foundations from damage from ongoing site activities. Appropriate measures (e.g. 150 micron polyethylene sheet) may be taken to cover and protect the coating.
- Clean all tools after use with clean water. Hardened material can be cleaned with a solvent.

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control and different test methods.

HEALTH AND SAFETY INFORMATION

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet.

PRECAUTIONS

- Do not apply during rains or extreme temperatures.
- Being water based the bitumen in the pack it has a tendency to sediment when stored for long durations. Therefore, it is recommended to stir the pack with a mixing paddle or roll the unopened drum on the ground for a few minutes to remove all sediments.

- In hot climatic areas, some amount of water may evaporate out during storage. This may make the coating quite viscous and difficult to apply. Additional water up to 5% may be added at the work site to improve the application consistency.

SAFETY FEATURES

Kindly refer to the MSDS which gives detailed information on safety measures while handling the product, which is available on request.

Store in a cool, dry place.

Keep out of reach of children and away from eatables.

May be harmful if swallowed. In case of ingestion seek immediate medical attention.

Eye protection during application is recommended.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of skin contact wash with soap and plenty of water. Get medical attention if irritation develops or persists.

It is recommended to wear suitable nose pad during surface preparation.

Dispose as per recommendation mentioned above.

No added Lead, Mercury or Chromium compounds.