



# Flintkote 3 bitumen emulsion

A mineral colloid bitumen emulsion for general waterproofing, concrete protection and metal protection.

## DESCRIPTION

**Flintkote 3** bitumen emulsion is a single-pack, non-fibrated and stable water-borne emulsion which cures to form a firm and flexible bitumen waterproofing membrane. **Flintkote 3** is designed for use on horizontal and vertical surface. **Flintkote 3** is suitable for use as waterproof membrane on concrete, asbestos cement, roofing felt, mastic asphalt, slates, tiles and metal surface.

*(Note: **Flintkote 3** is formerly marketed under the brand name Shellkote Type 3, Shell Bitumen Emulsion No. 3 and Weatherkote Type 3. Product quality and specification remains unchanged)*

## ADVANTAGES

- Easy to apply by brush, trowel and sprayer.
- Forms a seamless and lap free membrane over the substrate.
- Water-based and non-toxic.
- Cures to form a flexible resilient waterproofing barrier over a wide range of temperatures.
- No flow or sagging of the film at elevated temperatures even on vertical surface.
- Excellent adhesion to the concrete substrate prevents lateral migration of water underneath.
- Can be applied to damp surface without standing water such as green concrete surface.

## USES

### Waterproofing

Typical applications will include concrete roofs, asbestos cement roof, exposed metal roofs, rejuvenation of asphalt roof, retaining walls, external concrete walls, above-grade floor slabs, bathrooms, kitchens, balconies and planter boxes. Also suitable for use as a non-toxic lining to water tanks.

### Insulation

Provides a vapour barrier for cold storage rooms, mushroom houses and similar installations. Suitable for application in food stores.

### Concrete Protection

To protect concrete from carbonation, spalling and sulphate attack.

### Metal Protection

As a protective coating against corrosion of pipes, structural steelworks and other metallic equipment.

### Timber End Protection

To seal the freshly cut timber surface to prevent excessive loss of water through the tree wounds.

## STANDARD COMPLIANCE

**ASTM D1227-79 Type 3** American Standard For Emulsified Asphalt Used as Protective Coating for Roofing

**SS-133** Singapore Standard For Bitumen Emulsion For Roof Waterproofing

## SPECIFICATION CLAUSE

Liquid applied bituminous waterproof membrane where shown on the drawings shall be **Flintkote 3** Bitumen Emulsion obtained from Shell. It should be used in accordance with the Shell's current product data sheet.

## APPLICATION INSTRUCTIONS

### Surface Preparation

Surfaces shall be dry, clean and free from dust, dirt, oil, grease, moss and loose material.

### Priming

Porous surfaces such as concrete or brick should be primed with  
1). a coat of 1:1 mixture of **Flintkote 3** and water or  
2). **Flintkote PF-4 Bitumen Paint** or **Flintkote Penetration Primer** at a coverage of 0.1 - 0.15 ltr/m<sup>2</sup>.

Allow to dry prior to **Flintkote 3** application.

Metal surfaces must be primed with **Flintkote PF-4 Bitumen Paint** or **Flintkote Penetration Primer** at a coverage of 0.1 - 0.15 ltr/m<sup>2</sup>. Allow to dry prior to **Flintkote 3** application.

### Membrane Application

Stir the emulsion well before use. **Flintkote 3** may be applied by roller, brush or spray for a minimum of 2 coats. Allow to dry between coats and apply each coat at right angles to the previous coat. **Flintkote 3** normally cures within 24 hours of application. For maximum durability, the coating can be reinforced with **Flintkote FG4** open woven glass fabric or equivalent. Protect from rain and frost until cured.

For exposed surface subjected to direct sunlight, apply 2 coats of **Flintkote Aluminium** or **Flintkote Decoralt** on the cured membrane.

## COVERAGE

Coverage rates will vary depending on the actual surface environment and application. The typical coverage is about 1.5 litres/m<sup>2</sup> for a 2 coats application.

## HEALTH AND SAFETY

**Flammability** : Non-flammable

**Skin Contact** : Occasional contact is unlikely to have any adverse effect except on particularly sensitive skin. As a general precaution, avoid repeated or prolonged contact. Remove skin contamination when wet with water. Use a proprietary hand cleaner if the product has dried.

**Eye Contact** : Unlikely to cause damage, no special precautions are necessary. However, as eyes are a sensitive area, contact should be avoided. In the event of accidental contact, irrigate immediately with plenty of water.

## CLEANING OF TOOLS

Clean immediately after use with water. Use kerosene or white spirit if the material has dried. During work, place tools in water when not in use.

## STORAGE

A minimum of 12 months in original sealed containers stored under cover at temperature between 5°C and 40°C. Must be protected from freezing conditions.

## PRODUCT DATA SUMMARY

Property	Test	Typical Values
Colour, Wet		Brown
Colour, Dry		Black
Appearance		Thick, smooth cream
Solid Content		>50%
Specific Gravity		1
Surface Drying Time		4 to 6 hours, depending on temperature and humidity
Coverage		0.50- 0.75 litre/m <sup>2</sup> per coat.
Flash point		Water-based, non-flammable
Heat Resistance, 100°C		No flow, sag or blistering
Water Vapour Transmission	ASTM E96	5 g/m <sup>2</sup> /24 hours
Tensile Strength - Reinforced with FG4	ASTM D412	2 N/mm <sup>2</sup>
Shore A Hardness - Reinforced with FG4	ASTM D2240	50
Crack Bridging, Reinforced with FG4	ASTM C836	Able to bridge 2mm crack
Chemical and water resistance		Resistant to water, alcohol, most salt solutions, some dilute acids and alkalis. Not resistant to oil, solvents and some detergent solutions

Typical values may represent average values from samples tested.

### Important Note

Shell products are sold subject to Shell's standard conditions for the Supply of Goods and Services, copies of which can be obtained on request. Whilst every effort is made to ensure that any advice, recommendation, specification or information this publication may give is accurate and correct, since the use of these products is beyond our control we cannot assume any risk or liability directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.

## PACKING

Flintkote 3 Bitumen Emulsion 3.5, 18 & 200 litre

### Ancillary Products

Flintkote PF-4 Bitumen Paint 17 litre

Flintkote Penetration Primer 18 litre

### Complementary Products

Flintkote Decoralt 18 litre

Flintkote Aluminium 18 litre

Flintkote FG4 fabric 1 m x 100 m per roll

*Note: Please confirm with the local Shell Company for product availability.*

