UNICOAT BITUMEN 305

SOLVENT BASED BITUMINOUS WATERPROOFING MEMBRANE



Product Features

UNICOAT BITUMEN 305 is a premium, non-fibreed, solvent-borne bitumien-modified liquid membrane engineered to provide reliable, flexible, and long-lasting seamless moisture protection across diverse structural applications.

Formulated for multi-surface versatile performance, **UNICOAT BITUMEN 305** applies as a deep dark brown liquid and cures into a continuous, tough black coating that bonds strongly to concrete, masonry, and metal substrates.

When applied in a multi-layer system, **UNICOAT BITUMEN 305** creates a high-durability, resilient waterproofing barrier capable of accommodating minor structural movement and thermal expansion without cracking or peeling.

Advantages

Excellent Waterproofing	Superior bonding strength
Multi-Purpose Versatility	Excellent durability
Seamless & Complete Coverage	Anti-bacterial and anti-fungal
Prevent corrosion	

Fields of Application

- **Structural Waterproofing:** Basements, retaining walls, concrete slabs, foundations.
- **Wet Areas:** Bathrooms, kitchens, terraces, balconies, planter boxes.
- **Protective Coating:** Metal surfaces (copper, zinc, steel, pipes), dowel bars, and concrete exposed to corrosion.
- **General Waterproofing Primer:** For cement screed, tiles, roofing felt, and other bituminous systems.

Can be applied on various substrates such as concrete base, asbestos sheet, cement / sand screed, roofing felt, slates, tiles, pipes, metal surfaces like copper, zinc and other similar to it.

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UNICOAT BITUMEN 305

Physical Properties

Material	:	Solvent Rubberise Bitumen
Colour	:	Dark Brown (before drying)
Appearance	:	Pasty, thixotropic consistency
Specific Gravity	:	0.89 @ 25°C
Solid Content	:	55 - 56%
Flash Point	:	≥ 50 °C
Setting Time	:	2-4 hours depending on climatic condition
Service Temperature	:	10 - 50°C
Size	:	20 litres pail

Product Coverage

The theoretical coverage is approximately **0.3–0.5 litres per m²** per coat. For practical application, an additional **10–15% allowance** should be considered to account for wastage and surface irregularities.

Application should always be carried out in **two coats**, applied at **right angles** to one another, ensuring that the first coat has fully dried before applying the subsequent coat.

Important Note

- The application surface must not be exposed to moving water during the coating process.
- **UNICOAT BITUMEN 305** may be submerged in water after a curing period of 5–7 days, subject to ambient temperature and relative humidity conditions.

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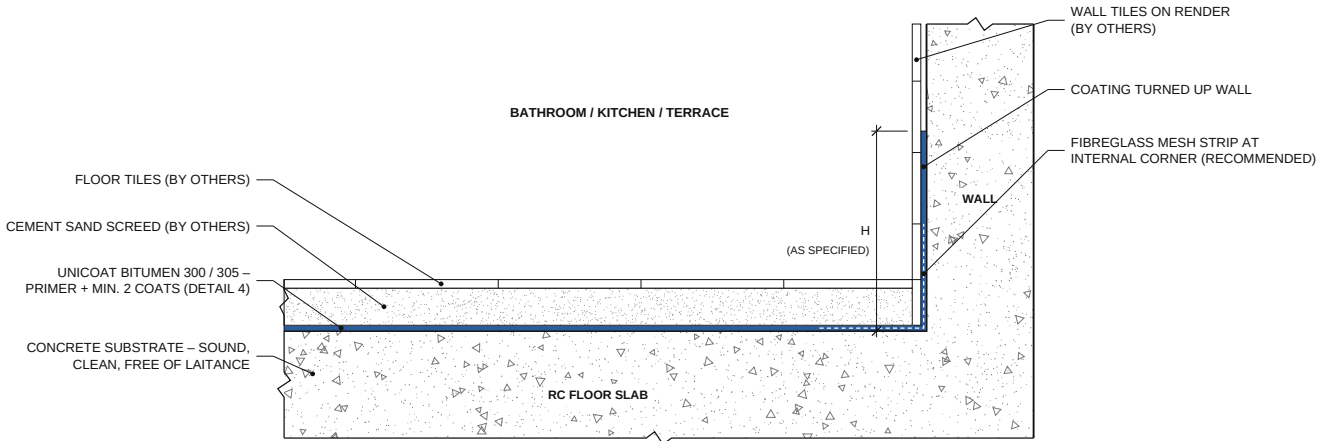
Typical Drawings

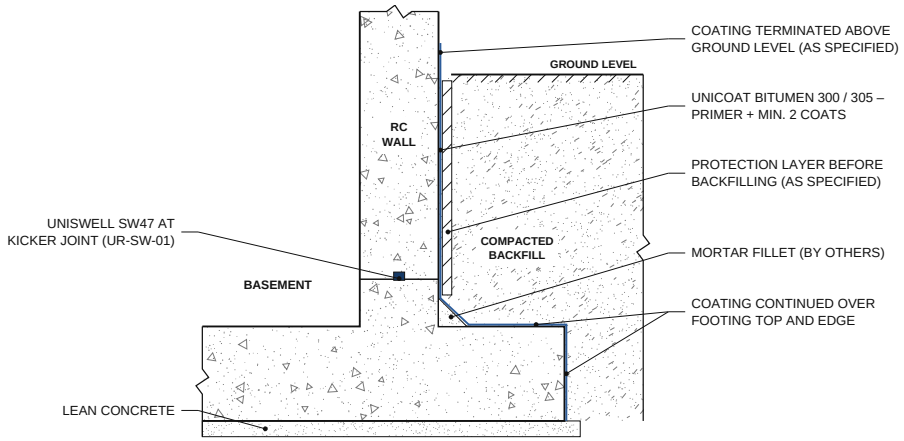
1 WET AREA FLOOR

Bathroom / kitchen / terrace – not to scale



2 BASEMENT / RETAINING WALL

External face – not to scale

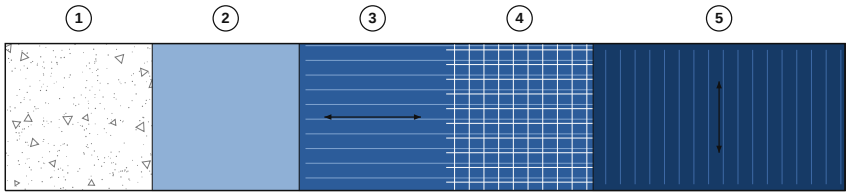


LEGEND

- UNICOAT BITUMEN coating
- UNICOAT primer coat
- UNISWELL SW47 / dowel cap
- Concrete
- Screed / backfill

3 COATING SEQUENCE

Stepped plan – not to scale



1. SUBSTRATE PREPARED – SOUND, CLEAN, REPAIRED
2. PRIMER COAT – 300 DILUTED WITH WATER / 305 UNDILUTED (SEE TABLE), DRY FULLY
3. 1ST COAT – BRUSH WELL IN, STRIKE OFF IN ONE DIRECTION
4. FIBREGLASS MESH (OPTIONAL) – LAID INTO THE WET 1ST COAT, PRESSURE-ROLLED
5. 2ND COAT AT RIGHT ANGLES AFTER 1ST COAT IS DRY; 3RD COAT IF MORE BUILD-UP NEEDED

NOTES

- Min. 2 coats at right angles.
- Let each coat dry fully.
- Protect from rain until cured.
- Mesh at corners is optional.

Ref. drawing UR-CT-01. For illustration only, not for construction. Details to be designed and approved by the project engineer.

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Installation Procedures

1 Surface Preparation | 2 Priming | 3 Application

Installation Procedures

Step 1
SURFACE PREPARATION

All substrates to be coated with **UNICOAT BITUMEN 305** must be **structurally sound, clean, dry, and free from dust, grease, or any surface contamination**. Remove all traces of curing compounds, paint coatings, laitance, organic growth, or other loose materials.

Surface preparation is best achieved by **high-pressure water jetting or light grit blasting.** Concrete with honeycombing, damage, or deterioration should be repaired with suitable repair mortars prior to application.

Step 2
PRIMING

UNICOAT BITUMEN 305 is supplied ready for use and should not be diluted.

A primer coat should be applied at a rate of **0.10–0.20 litres per square metre**, ensuring uniform coverage of the prepared substrate. The primer must be allowed to dry fully, typically within **two to four hours** depending on temperature and humidity, before the application of subsequent coats.

Step 3
APPLICATION

- **UNICOAT BITUMEN 305** can be applied using a **brush or squeegee**. Ensure the coating is worked well into the surface and struck off in one uniform direction.
- Apply a **minimum of two coats**, ensuring the **first coat is fully dry** before applying the second.
- The **second coat** should be applied **perpendicular** to the first coat to achieve optimum bond and coverage.

Reinforced Application (Optional for Durability):

- For enhanced durability, the coating may be **reinforced with fibreglass fabric/mesh.**
- Apply the first coat onto the primed substrate, immediately **embed the fibreglass fabric/mesh,** and then apply the second coat.
- During the second coat application, lightly press the fibreglass fabric/mesh using a **pressure roller** to ensure proper bonding.
- A third coat may be applied if additional build-up is required.
- The finished coating must be **protected from rain, running water, and moisture exposure** until it is fully cured. Under typical site conditions, allow **5–7 days curing time** before backfilling, submersion, or long-term water contact.

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Shelf Life & Storage

UNICOAT BITUMEN 305 has a shelf life of **12–24 months** when stored in its original, unopened container under dry conditions. Storage in areas of **high temperature or humidity** may reduce the product's effective shelf life.

Health & Safety

Flammable. Keep away from sparks, naked flames, heat sources and hot work. No smoking in the work area. Apply only in well-ventilated areas. In enclosed spaces (basements, tanks, pits), use forced ventilation and avoid breathing the vapour. Wear protective gloves, goggles and overalls. Avoid contact with skin and eyes. Skin contact: wipe off, then wash with soap and water. Eye contact: rinse immediately with clean water for at least 15 minutes and seek medical advice. Keep a dry-powder or foam extinguisher nearby. Do not use a water jet on a bitumen fire. Keep containers closed when not in use. Keep out of reach of children. Do not let product enter drains or waterways. Refer to the Material Safety Data Sheet (MSDS) for full health and safety information.

This technical data sheet is given in good faith and does not guarantee the application work.
All Unity Reliance technical data sheets & method statements are updated on a regular basis and can be subject to change without notice.
It is the user's responsibility to obtain the latest version of the information required.

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