

Product overview

Product description

ALKA 311 is a two-component, hand-applied polyurethane waterproofing membrane. Its reactive components form an elastic layer on properly prepared substrates, allowing installation without plural-component spray equipment. The full system includes the specified primer, detail treatment and protection for the intended exposure.

Key advantages

- Hand application supports sites where spray installation is unsuitable.
- Two-component cure provides a defined reactive membrane process.
- Elastic, continuous film suits approved waterproofing details.
- Liquid placement allows work around edges, penetrations and changes in shape.

Recommended uses

- Concrete waterproofing with an approved hand-applied system.
- Detailed building areas where controlled placement is required.
- Compatible substrates needing an elastic polyurethane membrane.
- Maintenance or local repair within an approved membrane build.

Product and system selection

Use this overview with the technical data, preparation, application and limitations in the following pages. Confirm the complete build with ALKA for the actual substrate and service conditions.

Product & system selection

Two-component, hand-applied polyurethane waterproofing membrane

Hand-applied elastic waterproofing to prepared concrete and other approved substrates.

Where this product fits

SYSTEM POSITION — CONCEPT ONLY	SELECTION / CONTROL
Specified exposed finish / protection	UV, traffic, tiling or backfill protection as selected
Continuous waterproofing membrane	Detailed joints, penetrations, drains and terminations
Compatible primer + prepared substrate	Accepted moisture and surface condition

Specify the complete application

DECISION	SELECTION TO RECORD
Substrate	Exact substrate, condition, moisture and existing coating.
Duty	Traffic, weather, water, chemicals, temperature and cleaning as relevant.
Finish / interface	Required colour, sheen, texture and compatible adjacent layers.
Acceptance	Nominate the inspection, test method and release conditions before work.

Limits of use

The hand-applied benchmark is a PU/polyurea hybrid; it does not prove ALKA 311 has that chemistry or identical performance.

Technical data

Typical data and application conditions are listed below. Contact ALKA Technical Support for fields requiring confirmation before specification or use.

PROPERTY	VALUE / CONDITION
Mix ratio	100:23.3 by mass in source; matched-component labels govern
Specific gravity	1.05-1.10 in source
Nonvolatile content	>99%; basis and test method to confirm
Pot life	20-35 minutes; temperature not stated
Cure reference	3-5 hours; temperature and cure endpoint not stated
Mechanical references	Shore A 90; tensile 5.2 MPa; elongation 310%; tear 31 kN/m; reports required
Application conditions	5-35°C; RH 20-90% in source
Thickness range	0.50-3.00 mm in source; define per-coat and total limits
Consumption statement	1 kg/m ² per 1 mm DFT in source; inconsistent with density and needs correction
Recoat / light access	5-24 hours / 24 hours in source; temperature to confirm
Storage / shelf life	12 months unopened at 10-35°C
Appearance / exposure	Source is not light stable; exposed use needs an approved finish

Interpreting the data

Values depend on the stated temperature, humidity, film build, test method and substrate. Typical laboratory figures are not automatic project acceptance criteria. Changes to colour, thinner, aggregate, mix proportion or layer build can change performance.

Units and test basis

Keep mass and volume mixing ratios distinct. State whether solids are by mass or volume and whether thickness is WFT (wet film), DFT (dry film) or total system build. Coverage is theoretical unless an actual site yield is stated.

Substrate & work preparation

PREPARATION STAGE	REQUIRED APPROACH
Waterproofing design	Confirm positive/negative water pressure, drainage, falls, exposure, traffic and protection. Identify the responsible detail designer and the permitted substrate types.
Surface preparation	Remove laitance, contamination and weak coatings. Repair voids, sharp projections and unstable areas so the membrane can form a continuous layer.
Moisture condition	Measure moisture using the specified method. The required condition differs between cementitious, water-based and moisture-reactive products; do not apply one universal limit.
Movement and drainage	Detail joints, wall/floor changes, penetrations and drains before field coating. Nominate compatible sealants, bond breakers, reinforcement and termination methods.
Interface compatibility	Confirm the primer, membrane, adhesive, protection board and topcoat as a complete build. Trial uncertain old membranes and coated substrates before proceeding.

Establish the application release point

The applicator and responsible technical reviewer should accept the substrate, repairs, environmental conditions, material identity and system schedule before work starts. Record the moisture method and readings, substrate/air temperatures, humidity and condensation assessment where relevant.

Materials and equipment

Check labels, component pairing, batch numbers, expiry and storage history. Provide suitable mixing, application and inspection equipment, clean containers and calibrated measuring tools. Keep contaminated tools and residues away from fresh material.

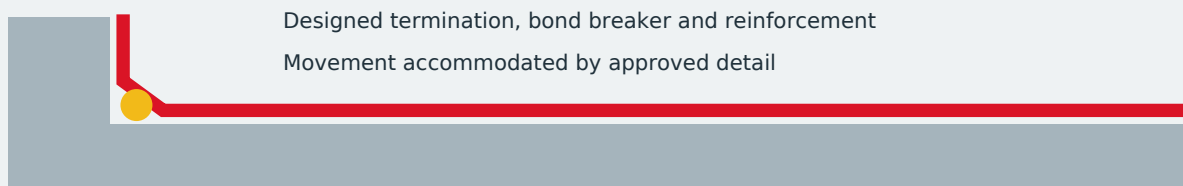
Representative trial

Where condition or compatibility is uncertain, trial the complete proposed preparation and coating sequence. Agree the sample location, cure time, appearance and adhesion assessment before extending the work.

Mixing & application

STEP	PRODUCT-SPECIFIC PROCEDURE
01	Prepare and prime the substrate with the nominated compatible system, then install joint, penetration and termination details before the field membrane.
02	The source sequence pre-stirs Part B for 2-3 minutes at 300-400 rpm, then adds B to A and mixes for 3 minutes. Confirm component naming and follow the matched-kit instruction at 100:23.3 by mass.
03	Place promptly with the approved hand tools to the selected build, keeping within working life. Avoid bridging moving joints with a rigid or uncontrolled membrane detail.
04	Use the validated recoat interval and protect the completed membrane. Install an approved UV or traffic finish where required; do not infer root resistance from a generic product-class description.

WALL / FLOOR TRANSITION / CONCEPT SECTION



Substrate falls, drains and penetrations require separate project details

Concept drawing only; no dimensions, tested build, product compatibility or engineering approval are implied. Follow the approved project details.

Continuity and stopping points

Plan work to natural breaks and maintain a consistent application method. Do not stretch material beyond the approved coverage. Check intermediate surfaces before covering them; remove contamination and rectify defects using an approved repair procedure.

Out-of-window or interrupted work

When the permitted interval is exceeded, or rain, dust, condensation or site damage affects the surface, assess the condition before continuing. Use the validated cleaning, abrasion, re-priming or repair method; an apparently dry surface is not proof of intercoat adhesion.

Quantity, cure & sequencing

Set the accepted consumption and coat count before ordering. Measure actual area, include surface-profile demand, repairs and losses, and round reactive material to complete matched kits.

QUANTITY CONTROL	METHOD
Mass-rated product	Net kg = area (m ²) × kg/m ² per coat × number of coats. Add a documented allowance.
Volume-rated product	Net L = area (m ²) × L/m ² per coat × number of coats.
Film-forming coating	Theoretical m ² /L = 1,000 × volume-solids fraction / DFT (µm). Mass solids cannot replace volume solids.
Kits and losses	Order complete kits. State the basis of any waste allowance; profile, texture and application method affect practical yield.

Project quantities

A numerical ALKA ordering example has not been supplied where rate, density, solids or product identity is unresolved. Approve those inputs before finalising a project estimate.

Source timing / release references

STAGE	TIME / CONDITION
Pot life	20–35 minutes; temperature not stated
Recoat / light access	5–24 hours / 24 hours in source; temperature to confirm

Plan around actual conditions

Temperature, humidity, ventilation, substrate absorption and thickness affect drying and cure. Pot life, open time, touch dry, overcoat time and service release describe different conditions. Record when reactive components are combined; do not extend working life with unapproved water or solvent.

Release to service

Use the technically approved schedule for the actual load or exposure. Chemical immersion, vehicle loading, water testing, stacking and washing may require different release points where those duties are specified. Do not infer readiness from surface appearance alone.

Inspection, safety & handover

HOLD POINT	RECORD / VERIFY
Before work	Accepted substrate and details; material/version; approved colour/build; environmental conditions and trial result.
During application	Component/tint batches; proportions; mixing and placement times; measured area, quantity and thickness; coat count and interruptions.
Before next layer	Surface condition; permitted interval; defects and repairs; primer/receiving-layer compatibility.
Before service	Cure conditions and elapsed time; final inspections; approved test results; repairs completed and rechecked.

Product-specific checks

- Inspect details and primer before covering them.
- Measure each coat's consumption/WFT and verify the specified completed DFT where applicable.
- Use approved flood/continuity testing only after the required cure and before concealment.

Investigate defects before covering them

Softness or delayed drying calls for a review of identity, proportioning, conditions and thickness. Bubbles or pinholes call for a review of moisture, porosity, air entrainment and application rate. Loss of adhesion requires locating the failure plane and correcting preparation or interface problems. Isolate affected areas; do not conceal uncured or unsound material.

Safe handling and cleaning

Read the current SDS for the actual product and every component, thinner and cleaner. Use the specified ventilation, personal protection and site controls. Spray, abrasive preparation and confined-space work need competent planning. Do not assume water-based, low odour, cured appearance or high solids means non-hazardous.

Use only the product-approved cleaner before material cures; keep cleaning solvent separate from coating thinner. Collect residues and protect drains. Cured material normally needs an appropriate mechanical removal method; avoid damaging the sound substrate.

Maintenance and handover

Keep drainage clear and inspect terminations, penetrations and movement joints. Repair punctures and local defects with the approved preparation and overlap procedure. Protect the membrane from subsequent trades and retain inspection records before concealment.

Retain the installed system, batch and application records, inspection results, repair details and agreed cleaning/reopening instructions. The approved TDS and current SDS should be available to the applicator and owner.