

Product overview

Product description

ALKA 312 is a single-component, moisture-curing polyurethane membrane for liquid-applied waterproofing. It is used as the waterproofing body layer over a prepared substrate with compatible primer and detail treatment. The finish and protection are selected for the intended exposure and use.

Key advantages

- Single-component format simplifies preparation.
- Elastic film supports the specified movement capability of the system.
- Liquid application produces a continuous waterproofing layer.
- Application can follow irregular substrate geometry and details.

Recommended uses

- Approved liquid-applied building waterproofing.
- Prepared concrete and accepted mineral substrates.
- Membrane installations beneath specified protective finishes.
- Refurbishment of compatible waterproofing systems following assessment.

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

Single-component, moisture-curing polyurethane waterproofing membrane

Seamless waterproofing of approved prepared substrates, with detailing, protection and exposure finish selected as a complete system.

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

Do not expose to vehicles, permanent immersion or unprotected service unless the complete build is expressly approved.

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
Chemistry	One-pack moisture-curing polyurethane
Liquid / cured density	1.35-1.40 / 1.46-1.50 g/cm ³ in source
Nonvolatile content	88%, source ASTM D2369; do not treat as volume solids
VOC / viscosity	180 g/L; 8,000-14,000 cP at 25°C (source method details to verify)
Mechanical references	Shore A 50; tensile >2 MPa; elongation >300%; tear 12 kN/m; reports required
Application conditions	5-35°C; RH 20-90% in source
Substrate moisture	Source up to 5%; method and approved substrate scope require confirmation
Source coat schedule	2 coats, each at least 0.68 L/m ²
Nominal complete DFT	1.20 mm in source; validate against measured volume solids and installed build
Recoat / light access	Overnight, maximum 24 hours; foot traffic 24 hours; reference conditions to confirm
Storage / shelf life	9 months unopened at 5-35°C
Service-temperature claim	-20 to +80°C in source; dry/wet and duration scope unverified

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.

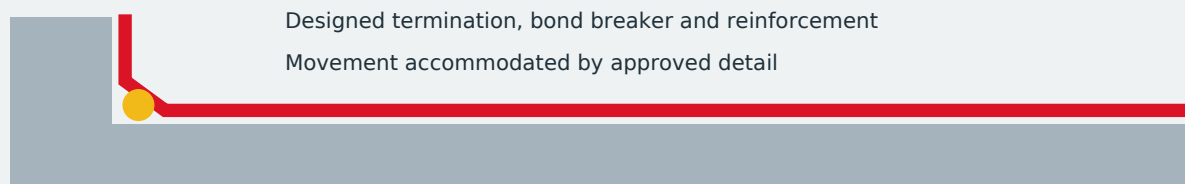
Representative trial

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	Resolve falls, drainage, joints, penetrations and termination heights before application. Prepare and prime with the system-approved primer; do not transfer adhesion results obtained with a different primer.
02	Stir to uniformity without entraining air, using dry tools. Follow the approved one-pack handling procedure; do not add a hardener or unapproved thinner.
03	Detail corners, changes of substrate, penetrations and movement joints using the designed bond-breaker/reinforcement arrangement. Reinforcement choice is a project-system decision.
04	Apply the source two-coat sequence at controlled rates and inspect continuity between coats. Protect from early rain, ponding, contamination and subsequent trades; provide the approved traffic/UV finish where specified.

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.

WORKED EXAMPLE — ESTIMATE ONLY	CALCULATION
Illustration	100 m ² , two coats at 0.680 L/m ² per coat
Net product	136.00 L
With an assumed 10% allowance	149.60 L
Wet-film equivalence	680 µm per coat on an ideal flat surface
Dry film	Requires validated volume solids or an approved measured build; no conversion from mass solids

Basis of the example

One coat only. The source specifies two coats; nominal final DFT remains a technical verification item. The assumed area, coat count and 10% allowance are estimating choices, not independently validated ALKA specifications.

Source timing / release references

STAGE	TIME / CONDITION
Recoat / light access	Overnight, maximum 24 hours; foot traffic 24 hours; reference conditions 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.