

Product overview

Product description

ALKA 251 is a clear, two-component water-based polyurethane floor finish. It is used on approved interior resin systems when a transparent polyurethane finishing layer is required. Mixing, ventilation and recoat timing must suit the substrate and the specified appearance.

Key advantages

- Clear finish preserves the underlying floor colour and pattern.
- Water-based technology provides a different application option from solvent-containing finishes.
- Polyurethane wearing layer supports maintenance of compatible resin floors.
- Brush or roller application allows practical work on site.

Recommended uses

- Clear finishing of approved interior resin floors.
- Commercial interiors requiring a water-based polyurethane finish.
- Protective finishing over compatible decorative systems.
- Recoat work on prepared and proven compatible existing finishes.

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, water-based clear polyurethane floor finish

Clear finishing of approved interior resin-floor systems where a water-based polyurethane finish is required.

Where this product fits

SYSTEM POSITION — CONCEPT ONLY	SELECTION / CONTROL
Selected wearing / finish coat	Product, texture, thickness and exposure approval
Primer / receiving resin layer	Named compatible material; correct recoat condition
Prepared, repaired concrete	Sound substrate, accepted moisture and movement details

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 Sikafloor benchmark supports application topics; its matt finish, ratio, emissions and cure data are not ALKA specifications.

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
Identity	Two-component water-based clear polyurethane; approve final sheen description
Pack	Web 5 kg: 4 kg A + 1 kg B
Mix ratio	Pack implies 4:1 by mass; confirm before issue
Density	Web 1.05 kg/L; temperature and component basis not stated
Solids	Web 100% solids conflicts with water-based identity; corrected value needed
Pot life	Web 25 minutes at 25°C; prior generated sheet 2 hours; unresolved
Dry / recoat	Web 12-14 / 12-24 hours; prior generated sheet gives much shorter times; validate
Light duty / full cure	Web 3 / 7 days; confirm conditions
Thickness / consumption	Web 160-200 µm and 0.15 kg/m ² conflict; approved WFT/DFT required
VOC / sheen	No verified numerical VOC or gloss result adopted
Shelf life / storage	Product-specific validated values required

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
Survey the slab	Identify concrete condition, old coatings, cracks, joints, falls and contamination. Record the intended load, cleaning and exposure before choosing the complete build.
Mechanical preparation	Remove weak concrete, laitance and incompatible coatings to a sound, open surface. Degrease contamination before mechanical work and use suitable dust extraction.
Moisture and condensation	Use the specified quantitative moisture test and acceptance limit. Record air/substrate temperature, humidity and condensation risk; a plastic-sheet check alone is not a quantitative acceptance test.
Repairs and movement	Repair static defects with the nominated material. Preserve structural and movement joints through the finished floor; investigate moving cracks instead of rigidly bridging them.
Existing finishes	Determine adhesion, chemistry and contamination. Prepare and test the complete proposed build on a representative area; appearance alone cannot prove compatibility.

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.

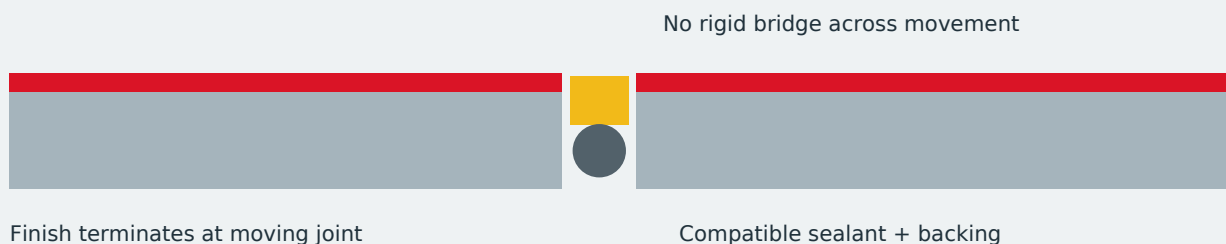
Representative trial

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	Approve sheen and transparency on the actual substrate; a matt benchmark must not change ALKA's intended gloss option.
02	Mix the matched components at the validated mass ratio using the approved sequence. Determine whether an induction period or controlled water addition applies before issuing the application procedure.
03	Use a suitable short-pile roller and maintain even loading and ventilation. Avoid over-rolling partially drying material, lap marks and heavy pools.
04	Keep material within the confirmed working life even if it still appears fluid; water-based two-component coatings may lose useful performance before visibly gelling.

MOVEMENT JOINT / CONCEPT SECTION



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 0.15 kg/m ² per coat
Net product	30 kg
With an assumed 10% allowance	33.00 kg
Complete packs	7 × 5 kg = 35 kg
Wet-volume check	0.15 / 1.05 = 0.143 L/m ² , equivalent to 143 µm WFT; this is not DFT

Basis of the example

Web illustration only. DFT must be below WFT for a water-containing coating after volatile loss. The assumed area, coat count and 10% allowance are estimating choices, not independently validated ALKA specifications.

Source timing / release references

STAGE	TIME / CONDITION
Pot life	Web 25 minutes at 25°C; prior generated sheet 2 hours; unresolved
Dry / recoat	Web 12–14 / 12–24 hours; prior generated sheet gives much shorter times; validate
Light duty / full cure	Web 3 / 7 days; confirm conditions

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

- Record batch proportions and mixing/placement times.
- Check material use against measured area and the approved film build.
- Agree adhesion, slip or electrical tests only where relevant to the actual system.

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

Remove abrasive grit and spills promptly. Trial cleaners before widespread use and avoid unapproved solvent cleaning. Inspect traffic lanes and joints; repair damage before liquids can enter below the finish.

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.