

Product overview

Product description

ALKA 118 is a two-component epoxy flooring component for engineered electrostatic-control systems. It is installed with the specified primers, conductive layers, earthing details and finish to achieve the project's electrical requirements. Electrical performance is assessed on the complete installed system, rather than inferred from the coating alone.

Key advantages

- Provides a resin flooring option for controlled electrostatic applications.
- Hard-wearing epoxy finish supports working-area durability.
- Continuous surface assists routine cleaning and maintenance.
- Texture and system build can be selected around the operational requirements.

Recommended uses

- Electronics production and assembly areas with an ESD specification.
- Laboratories and technical working areas requiring controlled electrical performance.
- Industrial facilities with a documented static-control design.
- Refurbishment of ESD floors under an approved installation and commissioning plan.

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, static-control epoxy flooring system component

Floors in areas with an engineered electrostatic-control requirement, installed as a complete tested system.

Where this product fits

SYSTEM POSITION — CONCEPT ONLY	SELECTION / CONTROL
Conductive wearing course	No unapproved insulating finish
Conductive build + grounding network	Continuity and connection design by responsible specialist
Approved primer and prepared concrete	Legacy primer identity and complete build require confirmation

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

A resin component alone does not establish ESD compliance or electrical safety.

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	Two-component conductive / static-control epoxy
Mix ratio	5:1 by mass or 3:1 by volume in source; verify matched labels
Mixed density / pack	1.60 kg/L; 24 kg (source 16 L equivalence unresolved)
Pot life	25 minutes at 20°C
Application conditions	10–30°C; source RH limit approximately 80%
Concrete preparation	Source CSP 2 or higher; tensile strength at least 1.5 MPa
Source layer build	ALKA 104 primer, ALKA 118 at 1–2 mm, copper grid, ALKA 118 at 1–2 mm; system validation required
Touch dry	8 hours at 20°C
Light duty / full cure	3 days / 7 days at 20°C
Electrical performance	No validated resistance range, test method or report supplied
Earthing / recoat	Project earthing design and validated intercoat window 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.

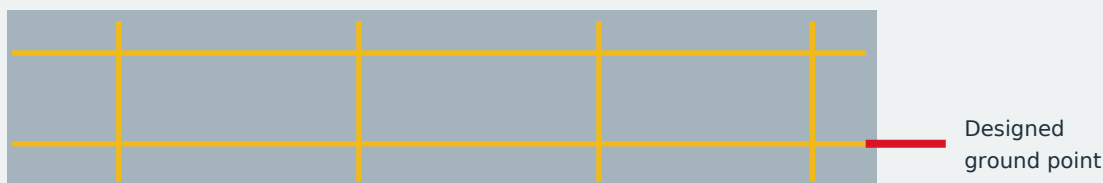
Representative trial

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	Obtain the electrostatic-control specification, grounding layout, test method, target resistance and footwear/person-floor requirements before substrate work.
02	Prepare concrete to the specified sound profile. Confirm the identity and availability of the legacy ALKA 104 primer rather than silently substituting another primer.
03	Pre-stir A for 2 minutes and mix with B for 2 minutes as stated in the source. Install the approved conductive build and grounding connections to the engineered layout.
04	Arrange electrical commissioning after cure by competent personnel. Record locations, test conditions and resistance results. An ordinary insulating clear finish must not be added over the system.

CONDUCTIVE SYSTEM / CONCEPT ONLY



Grid spacing, connections and test criteria must come from the approved ESD design

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	25 minutes at 20°C
Touch dry	8 hours at 20°C
Light duty / full cure	3 days / 7 days at 20°C
Earthing / recoat	Project earthing design and validated intercoat window required

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 grounding before it is concealed.
- Commission the completed floor using the specified electrical test and environmental conditioning.
- Record failure location and re-test repaired areas before use.

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

Use the agreed ESD-compatible maintenance regime. Recheck electrical performance at the intervals set by the ESD programme and after repairs, cleaning changes or recoating. Floor performance depends on the complete person-floor-grounding arrangement where that is specified.

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.