

Selection & Specification Data

Description	Two component self-leveling epoxy flooring.
Uses	Dry process areas where the floor is subjected to medium to heavy duty foot, trolley, pallet truck and rubber wheeled fork lift traffic. Typical uses include laboratories, clean rooms, warehouses, and electronic, aerospace, automotive and printing plants.
Benefits	<ul style="list-style-type: none"> • Attractive, enhances working environment • Hygienic – easy to clean • Non-tainting, non-dusting • Hard wearing floor finish • Abrasion resistant
Substrate Requirements	Concrete or screed substrate should be free from laitance, dust and other contamination. The substrate should be dry to 75% RH as per BS 8204 and free from rising damp and ground water pressure.
Primer	UniFloor 1 @ 6-8 mils

Technical Information

The figures that follow are typical properties achieved in laboratory tests at 70°F and at 50% Relative Humidity.

Fire Resistance	BS 476:Part 7: Surface spread of flame - Class 2 (indicative)
Slip Resistance Value	Method described in BS 7976-2 Dry 67 Wet 26 (typical values for 4-S rubber slider)
Abrasion Resistance	BS 8204-2 Class AR2 – Medium duty industrial and commercial.
Temperature Resistance	Tolerant of sustained temperatures up to 120°F
Water Permeability	Nil - Karsten test (impermeable)
Compressive Strength	7,900 psi (ASTM C579)
Flexural Strength	5,000 psi (ASTM C580)
Tensile Strength	3,625 psi (ASTM C307)
Bond Strength	Greater than cohesive strength of 3,625 psi concrete, > 220 psi.
Toxicity (when cured)	Taint free to sensitive foodstuffs.

Speed of Cure

Temperature	50°F	70°F	85°F
Light traffic	24 hrs	12 hrs	6 hrs
Full traffic	72 hrs	48 hrs	24 hrs
Full chemical cure	12 days	7 days	7 days

Aftercare - Cleaning and Maintenance

Clean regularly using a single or double headed rotary scrubber drier in conjunction with a mildly alkaline detergent.

Application Instructions

Preparation/Substrate:

Surfaces to be coated should be sound and provide adequate strength for the proposed end use (minimum 3500 psi compressive strength).

The surface profile and levels should be appropriate for the system to be applied. The concrete substrate moisture emission should not exceed 3 pounds per 1000 ft² over 24 hours when tested prior to application, and be free from excessive rising moisture.

A light shot blasting should be employed to remove laitance. Irregularities, damage and cracks are filled with epoxy filler. All residues must be removed to provide a dry, dust free open textured surface.

Contact us for advice if there are impurities, such as oils etc., in the concrete. Check the relative humidity of floors at ground level. Follow our instructions for connections to grid drains, cesspools, pipes and pipe inlets.

Outline Specification:

UniFloor 1 at approx. 175 sq feet per gallon

UniFloor 4 at approx. 110 sq feet per unit (for 80 mils)

UniFloor 1:

Prime using UniFloor 1 in one or two coats to ensure that the substrate is fully sealed. Pour all of Hardener B into the Base A container. Mix using a slow speed drill and helical spinner until a homogenous mixture is obtained. Do not entrain too much air. Immediately after mixing, pour out all of the resulting mixture onto the floor and apply using a double-lipped rubber squeegee and/or roller. Ensure that the primer permeates any surface irregularities.

Allow the primer to harden until the surface can be walked on, approximately 12 hours at 70°F. At lower temperatures the hardening time is longer. It is important there are no dry patches. In instances where the substrate is highly absorbent, two coats of primer may be required in order to avoid dry patches. Apply immediately after mixing using a double-lipped rubber rake and/or roller. Ensure that the primer permeates any surface irregularities. Consumption, primer: approximately 175 sq feet per gallon (per coat).

Mixing:

UniFloor 4 is supplied in 2 components, Base A, Hardener B. Transfer Hardener B to Base A. Mix thoroughly using a low-speed drill for 1-2 minutes. Transfer to a mixing vessel larger than 7 gallons in volume. Remember never to split batches/components. Incorrect mixing ratios or poor mixing can result in irregular hardening or variations in color, etc.

Application:

The compound is poured out immediately after mixing in a run on the floor. Spread the material with a toothed rake (1/8" SL rake) or spacing rake. The thickness of the layer is regulated by setting the distance between the pin and plate on the back of the spacing rake. To achieve a thickness of 80 mils, the spacing rake must be set to approximately 1/8". The thickness is guaranteed by measuring, and checking how much material has been used (every 500 ft²).

UniFloor 4 is applied in thicknesses of 80 mils or 120 mils. The surface is thoroughly rolled (after approximately 5 minutes) with a spiked roller to remove any air bubbles. Avoid late spiking, as this can lead to color inconsistencies and poor finish. The spiked roller also has a smoothing effect. Use clean spiked shoes if it is necessary to walk on freshly laid compound. During prolonged interruptions in the work the seam is placed where it is least visible, e.g. along drainpipes or door openings etc. Use masking tape. Apply the compound up on the tape. Remove the tape after rolling with the spiked roller. During the continuation of the work, mask with new tape on the finished coat. Remove after rolling. Allow the product to harden until it can be walked on (after approximately 24 hours at 70°F). The hardening time lengthens at lower temperatures. Consumption, UniFloor 4: approximately 110 sq feet per unit at 80 mils.

Note that:

Union compound products are often multiple-component systems. Poor mixing, or incorrect mixing procedures, can result in irregular and incomplete hardening, which in turn can result in an inferior final result.

Pigmented Base A is stirred first before Hardener B is added.

The temperature should be over 60°F to achieve the best results during application.

The temperature of the substrate should be at least 50°F, although a temperature of 60-80°F is recommended.

The temperature of the substrate should exceed the "dew point" by more than 5°F during application and hardening.

The product should be stored in such a way that the temperature is the same as the room temperature where the product is to be applied, i.e. between 60-80°F. This improves the mixing, flow, penetration and hardening of the product.

The surface can normally be walked on after approximately 15 hours at 70°F. Complete hardening takes 5-7 days.

There are often several types of products at a workplace. Sort the products separately to avoid mistakes.

Cleaning of Tools:

Cleaned immediately after use in solvent.

UniFloor 4: Self Leveling Epoxy Flooring



Packaging, Handling & Storage

Shipping Weight (Approximate)	5-Gal Kit 90 lbs
Flash Point (Setaflash)	Part A: 73°F Part B: 85°F Mixed: 89°F
Storage (General)	Store indoors.
Storage Temperature & Humidity	0° - 110°F (4° - 43°C) 0-100% Relative Humidity
Shelf Life	Part A: 12 months Part B: 12 months