

ULTRATUFF Epoxy

PRODUCT:

ULTRATUFF **Epoxy** is supplied in parts A & B, mixed prior to application. Used as a primer and for **damp proofing** walls and floors. Applied to the interior side, it is often used to waterproof interior floors and walls from moisture coming from outside or from under floor slabs. Ultratuff Epoxy is recommended as a DPC (Damp Proof Membrane). It is often used to treat existing floors to create new living spaces.

Suggested Uses:

Primer for Ultratuff membranes on concrete or damp surfaces Mortar admixes Waterproofing under carpet, vinyl Food processing industries Waterproofing floor slab in absence of damp proof course. Tank linings

Not Recommended:

Contact with strong acids, alkalis or aggressive solvents. Unprotected exterior exposure. Floors subjected to heavy traffic without protective coating. Over untreated steel, Application over actively leaking water. On red (clay) bricks

Features:

Waterproofing interior, exterior, masonry & concrete surfaces. Ultratuff Epoxy is a chemically cured, water based epoxy coating which is applied in moderately heavy films. Exceeds the waterproofing requirement of the US Federal spec 11-P-001411. Tested to withstand up to 40 psi hydrostatic pressure (equivalent to 28 metres head of water). Moisture vapour permeability BS test method 3177:1959 – 9.4gms, mil.m²/24 hours. Non-toxic: approved for potable water (AS4020(int) – 1994). Will not flow or sag at elevated temperatures. Will bond to oil contaminated surface (read text for details). Used to waterproof floors prior to carpet, vinyl, etc. Compatible with most floor adhesive types. May be applied to damp surfaces. Compliant with NZBC E2 & E3 (see rear section) Compliant with BRANZ: Good practice guide: Concrete floors; section 8.6.4

Properties:

Non flammable, Low odour, Waterbased, resists considerable physical damage. Minimum application temperature +10°C, Maximum humidity during application and cure 85% RH. Solids weight – 56% mixed, Solids volume – 42% mixed, S.G. – 1.25kgs/litre mixed. **Colour:** white, may be tinted to pastel colours. Finish semi gloss

Drying Conditions: Ultratuff Epoxy cures by first **drying** and then the **curing** of the epoxy system occurs. Good ventilation to remove moisture vapour must be available. Open windows and doors. Heat rooms if very cold. Warmth and air movement help cure. Under poor conditions, **white cement** can be used to accelerate the cure. Add one cup (300mls) of white cement to 4 litres of mixed Ultratuff Epoxy. Mix well and apply quickly, as the pot life will be shortened.

As a membrane primer

Once prepared thin up to 10% with clean potable water apply one coat allow to dry then apply one coat of Ultratuff acrylic primer. Once dry proceed with waterproofing membrane.

Application:

a) **Surface Preparation for Concrete**

It is essential that concrete surfaces are prepared well. Ultratuff Epoxy Primer works by bonding tenaciously to **concrete** surfaces. All paint, adhesive or other coatings must be removed. On concrete surfaces the weak concrete surface layer must be removed by grinding, shotblasting or acid etching. Acid etching has proved simple and effective with Ultratuff Epoxy Primer. Paint and/or adhesive is removed by the use of commercial angle grinders, water blasting or sand blasting. Ultratuff Epoxy Primer will **not** work if it is applied to paint, flaking paint, old adhesive, lime concrete, plaster or lime plaster.

(i) Cracks or floor joints:

Ultratuff Epoxy will **not** fill or cover large cracks. Fill these with Araldite K130 or K125 prior to application.

(ii) Fine Cracks:

If these cracks are suspected of, or have the potential for movement then the cracks must be pretreated. Laminate a strip of 300gsm chopped strand fibreglass matt (CSM) over the joint using mixed Ultratuff Epoxy. The strip is normally 150-200mm wide. Ensure the strip is fully saturated with Ultratuff Epoxy Primer. Ensure this is well dry prior to application of the first coat of Ultratuff Epoxy. A wall-floor junction of, for example, concrete blocks and a concrete floor may well benefit from a laminated tape from the wall to the floor. This strip may well stop any fine crack seepage.

b) Mixing and Application

Ensure that you have **part A** and **part B**. Mix them individually. Add them in measured equal volumes. Stir until uniform with an electric drill and paint stirrer. Once mixed the product may be applied with brush or roller. Apply evenly. The first coat should make the surface uniformly **white** (not grey). This implies the application of the correct coverage rate of material. As soon as the surface can be walked on, the second coat may be applied. **Normally** the two coats are applied on subsequent days. Allow one full day to cure prior to the application of other coatings.

Use Under Top coverings:

Ultratuff Epoxy is used to stop moisture coming up under vinyl, carpets, tiles etc. For use under vinyl certain techniques must be used as waterbased adhesives will not dry between the Ultratuff Epoxy and vinyl i.e. they are both impervious. Contact adhesives may be used to bond the vinyl to the Ultratuff Epoxy. A layer of floor levelling compound (eg: Nuplex screed systems) is often used over the Ultratuff Epoxy to absorb adhesive moisture. This has been found to be effective.

Floor Levelling:

Old floors often require both waterproofing and floor levelling. It is essential that the Ultratuff Epoxy is applied first to the prepared concrete. Floor levelling compounds are then applied to the Ultratuff Epoxy. **NB:** Prior to the installation of flooring levelling compounds it is advised to prime the Ultratuff Epoxy with Lockfast Neoprime. This should be left no longer than 2 hours. If a longer time elapses a further coat of Neoprime is to be applied.

Solid Plaster:

If applying solid plaster over cured Ultratuff Epoxy, prepare a slurry coat of cement and **ARAPLEX 2000** and prime the wall with this mixture prior to full plastering.

Green Concrete:

Ultratuff Epoxy can be laid on green concrete. Normally the age of the concrete should be 7 or more days. It is expected that laying in this situation, the concrete will have been protected from rain since laying. Green/saturated concrete is not a suitable base. In all instances normal preparation (shotblasting or grinding) is still required prior to laying Ultratuff Epoxy.

Floor Coating (Trafficable)

If Ultratuff Epoxy is to be used as a floor coating, it then requires overcoating with two coats of AQUACOLOUR waterproofing. (**NB:** Ensure the Epoxy is cured 48hrs prior to the application of Aquacolour). Terratuff may also be used over fully cured Ultratuff Epoxy. Both these topcoats will convey trafficability.

Packaging:

4 litres: 2 litres A 2 litres B (handyman kit) 8 litres, 4 litres A, 4 litres B (boxed kit) 20 litres:10 litres A, 10 litres B (pails)

Application Method:

Brush, roller or spray (if sprayed then follow-on with roller).

Mix Ratios:

Either by volume or weight, 1:1 part A and B. Mix the two parts with a paint mixer bit and a power drill.

Product Requirements:

Total requirement (2 coats) is worked out on 1.5m²/litre or 3m²/Lt/coat

Examples: A 12m² floor requires 8 litres (4Lts A plus 4 Lts B). Or a 20lt kit (10A + 10B) will finish 30m² (2 full coats).

Thinning:

Not recommended, but may be thinned up to 10% with clean potable water.

Dry Times:

(25°C 50% RH), Surface dry 4 hours, Hard dry 24 hours, Full cure 7 days, Pot life (mixed) 2 hours, Do not use beyond pot life. If overcoating with solvent based products allow at least 4 days to cure.

Clean Up:

Warm water and detergent.

For safety see the Material Safety Data Sheets:

All information is given in good faith without warranty. Users are encouraged to assess the product under their own conditions and for their own applications